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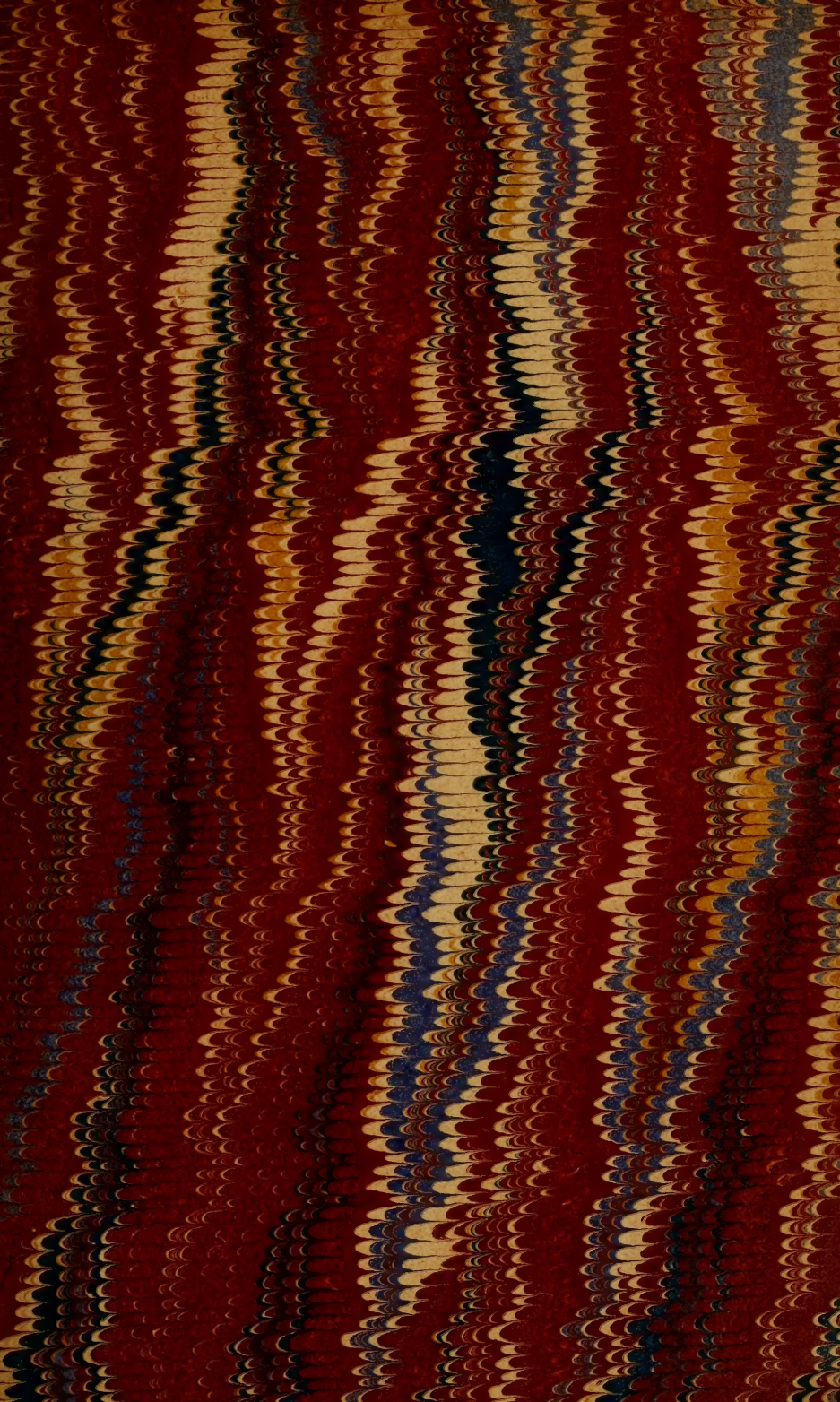
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OF THE

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Commonwealth of Massachusetts.

BUREAU OF STATISTICS OF LABOR,
CLAPLIN BUILDING, 20 BEACON STREET,
BOSTON, Dec. 31, 1889.

HON. WILLIAM E. BARRETT, *Speaker of House of Representatives.*

Sir: — I have the honor to present, herewith, the Twentieth Annual Report of this Bureau.

The various parts, except the last, which compose this report have been presented to the legislature and given to the press as fast as completed, inasmuch as the subjects to which they relate are independent each of the other, and it seemed advisable to issue them with as great promptness as possible after their completion. The requisite authority for this manner of publication was conferred upon the Bureau by Chapter 97 of the Acts of 1890.

As the value of statistical information depends largely upon its freshness, and the promptness with which it is made public after its collection, this plan of presentation will be followed in the future.

Part VIII. of this report, which is now first published, consists of an index to the reports which have been annually made by the Bureau since its establishment. The need of such an index has been made apparent by the numerous requests made to this department for information such as it supplies. The wide range of industrial and social questions covered in our reports, many of which contain the results of original investigations upon topics never before subjected to inquiry, have given the documents a permanent value and caused them to be constantly consulted by students and others especially interested in economic science. The present volume being the twentieth in the series it seemed proper to incorporate in it an index sufficiently complete to enable ready reference to the subjects treated in the entire list.

Since the publication of Part I. it has appeared that a statement contained on page 4 might be given a broader interpretation than was intended. I refer to the following statement: "The material collected by the Bureau, upon which the present Part rests, is from original sources, and in the form of distinct and complete returns from 1,615 different manufacturing establishments in the Commonwealth. It is not only entirely reliable, but it is new, the field having never till now been covered by any extended investigation." I do not wish to seem to ignore the valuable contribution to discussions relating to the relation of wages to the cost of production made by Mr. Joseph D. Weeks in Volume XX. of the United States Census of 1880, nor to the investigation undertaken by Hon. Samuel M. Hotchkiss, Commissioner of Labor of the State of Connecticut, the results of which, covering 241 typical establishments, were published in the Report of that Bureau in 1889 and are to be paralleled by subsequent returns from the same establishments. The plan of consecutive returns from the same sources to be pursued by Mr. Hotchkiss is one which has been followed since 1886 in the reports containing the Annual Statistics of Manufactures in Massachusetts, issued by this Bureau, and promises especially valuable results, as it enables comparisons upon a basis identical in each year.

I wish to especially acknowledge the efficient services of Mr. Charles F. Pidgin, chief clerk, who has had executive charge of the clerical force engaged on this report, and my thanks are due Mr. Frank H. Drown, second clerk, and to the members of the staff generally.

I have the honor to be,
Your obedient servant,

HORACE G. WADLIN, *Chief.*

PART I.

RELATION OF WAGES

TO THE

COST OF PRODUCTION.

PART I.

RELATION OF WAGES TO THE COST OF PRODUCTION.

Production involves two elements, Labor and Capital. In the discussion of economic questions relating to production, evidence respecting the labor element, including under that head wages and labor cost, is always of value. The part which such evidence plays in the solution of certain practical problems is unquestioned. The proper adjustment of a protective tariff cannot be made without this evidence, nor can controversies between labor and capital be rightly settled without reference to it.

Two lines of inquiry present themselves. First, the determination of the share of product which falls to labor in distinction from the share retained by capital; and, second, the relation which labor cost bears to the total cost of the product, as shown by the proportion which wages bear to the other elements of cost. The first inquiry would involve the question of profits, and would take, as its basis, the selling price of the product, separating this price into the various factors which compose it; such, for instance, as wages (labor's share) and profits and interest (capital's share). The second phase of the subject deals only with the actual cost to the manufacturer, eliminates profits, and determines what part of that cost is due to labor, represented by wages, and what to raw material and other necessary expenses. These two phases of the subject involve different and entirely distinct problems. In fact, one line of investigation concerns the distribution of

wealth, while the other deals entirely with its production. It is with the second and simpler investigation, which properly precedes the other, that the present Part deals. The question it asks and answers, in 1,615 specified instances, is, What relation does the cost of labor bear to the cost of the product, as it lies completed in the manufacturer's hands? From the manufacturer's stand-point the inquiry relates to outlay, not to income; that is, it does not deal with profits. From the workman's stand-point it determines the share he has contributed to the product, and for which he has been remunerated in the form of wages.

The material collected by the Bureau, upon which the present Part rests, is from original sources, and in the form of distinct and complete returns from 1,615 different manufacturing establishments in the Commonwealth. It is not only entirely reliable, but it is new, the field having never till now been covered by any extended investigation.

In the tables certain selected articles of manufacture, under each classified head, are presented, the total cost of producing a specified quantity being given by percentages showing the proportionate expenses for wages, raw material, and for expenses not specified. By the latter item is meant any expenses not properly included under the head of wages, as, for instance, rent, taxes, insurance, etc. Each article is followed by a similar presentation for the establishment in which it was made, showing the expense of production of all articles made in the establishment upon the same basis as that used in giving the cost of the selected article. In a few cases, obvious upon an inspection of the tables, the item "expenses not specified" has been included in the item "raw materials" in the returns, giving, in such cases, only two divisions of cost, namely, wages and raw material. The tables are followed by an analysis of results.

AGRICULTURAL IMPLEMENTS.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Hay cutters,	one hundred	25.00	75.00	-
The establishment,		59.80	27.78	12.42
Horse-powers,	one machine	50.00	50.00	-
The establishment,		56.98	35.61	7.41
Plows,	one hundred	40.69	59.81	-
The establishment,		50.72	33.87	15.41
Scythe sticks,	one hundred	26.92	61.54	11.54
The establishment,		33.90	66.10	-
Shovels,	one dozen	33.05	49.46	17.49
The establishment,		29.22	59.61	11.17

ARMS AND AMMUNITION.

Blasting powder,	twenty-two hundred kegs	36.00	64.00	-
The establishment,		35.02	62.26	2.72
Gun nipples,	one gross	90.29	9.71	-
The establishment,		86.13	11.48	2.39
Gunpowder,	one hundred pounds	13.33	70.00	16.67
The establishment,		18.40	81.60	-
Gunpowder,	twenty-five hundred pounds	18.08	58.00	23.92
The establishment,		18.61	66.17	15.22
Pistols,	one	50.00	25.00	25.00
The establishment,		39.11	53.60	7.29
Rifles,	one	68.00	32.00	-
The establishment,		54.84	29.70	15.46

ARTIFICIAL TEETH AND DENTAL WORK.

Artificial teeth, . . . . .	. . . . .	50.00	50.00	-
The establishment,		25.87	53.48	20.65
Artificial teeth,	one set	70.00	30.00	-
The establishment,		-	100.00	-
Artificial teeth,	one set	62.50	37.50	-
The establishment,		-	100.00	-

ARTISANS' TOOLS.

Awls,	one thousand	68.75	31.25	-
The establishment,		59.78	40.22	-
Axes,	one dozen	34.78	52.18	13.04
The establishment,		41.53	52.08	6.39
Bit braces,	one	46.00	34.00	20.00
The establishment,		51.27	36.33	12.40
Bits,	one gross	55.56	44.44	-
The establishment,		48.99	47.41	3.60
Bits ($\frac{3}{4}$ inch),	one hundred	89.58	10.42	-
The establishment,		56.25	39.06	4.69
Calking tools,	one dozen	68.75	31.25	-
The establishment,		69.23	20.61	10.16
Chisels,	one dozen	50.00	50.00	-
The establishment,		48.84	12.48	38.68
Cutting dies,	one hundred	66.67	33.33	-
The establishment,		69.51	30.49	-

ARTISANS' TOOLS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Engine lathes and planes, The establishment,	ninety-five	51.43 68.18	23.62 31.31	24.95 0.51
Files, The establishment,	one dozen	52.00 77.88	37.20 14.33	10.80 7.79
Files, The establishment,	one gross	53.85 38.79	46.15 14.81	— 46.40
Files and rasps, The establishment,	one dozen	61.57 53.90	38.43 23.54	— 22.56
Jack planes, The establishment,	one hundred	52.50 74.96	47.50 22.79	— 2.25
Lathes, The establishment,	twenty	56.65 47.21	30.59 32.09	12.76 20.70
Machine knives, The establishment,	one hundred feet	41.67 43.42	52.08 42.38	6.25 14.20
Peg cutters, The establishment,	one dozen	40.91 67.08	36.36 27.32	22.73 5.60
Saws, The establishment,	one hundred dozen	60.00 38.48	40.00 43.19	— 18.33
Saw swages, The establishment,	one hundred	75.00 80.83	25.00 19.17	— —
Screw wrenches, The establishment,	one thousand	45.34 51.26	39.38 37.76	15.28 10.98
Screw wrenches, The establishment,	twelve thousand	66.67 52.60	29.89 38.82	3.44 8.58
Sewing awls, The establishment,	one thousand	91.47 63.84	8.53 22.81	— 13.35
Shoe knives, The establishment,	one hundred dozen	75.00 80.32	18.75 19.68	6.25 —
Shoe knives, The establishment,	one gross	57.14 59.69	20.19 36.33	22.67 3.98
Spirit levels, The establishment,	one hundred	62.50 33.33	32.14 60.85	5.36 5.82
Tanner's fleshers, The establishment,	one dozen	36.84 36.27	63.16 36.88	— 26.85
Wrenches, The establishment,	one hundred	50.73 50.14	37.68 29.08	11.59 20.78

BOOTS AND SHOES.

Boot and shoe stitching, The establishment,	sixty pairs	86.67 80.77	13.33 10.26	— 8.97
Boots, The establishment,	one pair	42.94 42.28	57.06 55.98	— 1.74
Boots, The establishment,	ten pairs	38.46 —	61.54 82.68	— 17.32
Boots, The establishment,	twelve pairs	21.33 16.72	74.84 80.82	3.83 2.46
Boots, The establishment,	twelve pairs	30.00 25.28	70.00 74.72	— —
Boots, The establishment,	twelve pairs	24.14 24.95	75.86 73.94	— 1.11
Boots, The establishment,	one case	44.44 62.10	55.56 25.74	— 12.16
Boots, The establishment,	one case	45.00 48.82	55.00 50.98	— 0.20
Boots, The establishment,	one case	27.77 27.78	72.23 72.22	— —

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Boots,	one case	33.35	66.65	—
The establishment,		29.19	70.06	0.75
Boots,	one case	27.27	54.55	18.18
The establishment,		25.28	72.78	1.94
Boots,	one case	22.22	66.67	11.11
The establishment,		23.16	75.67	1.17
Boots,	one case	29.00	71.00	—
The establishment,		23.38	76.62	—
Boots,	ten cases	31.20	66.80	2.00
The establishment,		14.72	82.88	2.40
Boots,	one hundred cases	22.73	72.73	4.54
The establishment,		24.55	67.40	8.05
Boots,	five thousand cases	22.22	77.78	—
The establishment,		21.86	76.52	1.62
Boots,	ten thousand, seven hundred and twenty cases	26.47	73.53	—
The establishment,		26.13	72.59	1.28
Boots, balmoral (button, calf, men's)	twelve pairs	25.00	69.90	5.10
The establishment,		27.10	68.61	4.29
Boots, balmoral (English, men's)	two hundred cases	25.00	75.00	—
The establishment,		24.96	74.94	0.10
Boots, balmoral (grain, women's)	sixty pairs	31.32	68.68	—
The establishment,		25.88	71.55	2.57
Boots, buff (men's)	twenty-four pairs	33.82	66.18	—
The establishment,		28.20	71.11	0.69
Boots, button	seventy-two pairs	33.95	64.82	1.23
The establishment,		40.44	57.67	1.89
Boots, button (calf)	twenty-four pairs	32.90	59.21	7.89
The establishment,		46.15	47.72	6.13
Boots, button (calf, men's)	twelve pairs	34.21	65.79	—
The establishment,		30.70	66.49	2.81
Boots, button (children's)	sixty pairs	31.11	62.22	6.67
The establishment,		23.68	76.25	0.07
Boots, button (children's)	seventy-two pairs	52.63	47.37	—
The establishment,		52.62	46.78	0.60
Boots, button (children's)	seventy-two pairs	31.67	68.33	—
The establishment,		20.21	77.27	2.52
Boots, button (Dongola, women's)	thirty-six pairs	40.00	60.00	—
The establishment,		22.79	74.07	3.14
Boots, button (glove foxed, women's)	sixty pairs	31.58	68.42	—
The establishment,		7.43	89.25	3.32
Boots, button (glove grain, women's)	sixty pairs	35.19	64.81	—
The establishment,		25.49	72.17	2.34
Boots, button (glove grain, women's)	sixty pairs	21.18	42.35	36.47
The establishment,		6.42	91.79	1.79
Boots, button (glove top and foxed kid, women's)	sixty pairs	41.67	58.33	—
The establishment,		10.87	87.93	1.20
Boots, button (goat, women's)	sixty pairs	34.97	65.03	—
The establishment,		14.83	83.76	1.41
Boots, button (grain)	one pair	33.68	63.16	3.16
The establishment,		17.66	77.70	4.64
Boots, button (grain)	one pair	27.78	72.22	—
The establishment,		32.28	66.50	1.22
Boots, button (grain)	sixty pairs	25.00	65.00	10.00
The establishment,		12.98	86.03	0.99
Boots, button (grain, children's)	seventy-two pairs	32.76	67.24	—
The establishment,		16.55	82.76	0.69
Boots, button (grain, misses')	sixty pairs	29.42	67.67	2.91
The establishment,		24.75	63.66	11.59

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Boots, button (kid)	one case	31.03	62.07	6.90
The establishment,		19.91	79.17	0.92
Boots, button (kid, children's)	sixty pairs	42.04	57.96	-
The establishment,		46.06	50.90	3.04
Boots, button (kid, children's)	seventy-two pairs	33.23	66.77	-
The establishment,		29.26	69.76	0.98
Boots, button (kid, children's)	seventy-two pairs	38.89	52.78	8.33
The establishment,		35.46	55.72	8.82
Boots, button (kid, women's)	thirty-six pairs	38.10	61.90	-
The establishment,		35.84	58.87	5.29
Boots, button (kid, women's)	thirty-six pairs	32.79	67.21	-
The establishment,		27.68	69.48	2.84
Boots, button (kid, women's)	thirty-six pairs	40.00	60.00	-
The establishment,		8.19	90.25	1.46
Boots, button (kid, women's)	sixty pairs	40.00	60.00	-
The establishment,		5.05	93.18	1.77
Boots, button (kid, women's)	sixty pairs	31.54	60.77	7.69
The establishment,		27.37	70.61	2.92
Boots, button (kid, women's)	sixty pairs	25.36	74.61	-
The establishment,		6.74	91.28	1.98
Boots, button (kid, women's)	sixty pairs	40.00	60.00	-
The establishment,		13.53	85.05	1.42
Boots, button (kid, women's)	sixty pairs	35.24	64.76	-
The establishment,		5.52	93.57	0.91
Boots, button (kid, women's)	sixty pairs	30.99	69.01	-
The establishment,		15.86	79.29	4.85
Boots, button (kid, women's)	sixty pairs	36.00	64.00	-
The establishment,		16.61	79.10	4.29
Boots, button (kid, women's)	sixty pairs	36.56	63.44	-
The establishment,		6.59	91.18	2.23
Boots, button (women's)	sixty pairs	27.41	61.48	11.11
The establishment,		23.11	64.48	12.41
Boots, calf	twelve pairs	20.83	72.00	7.17
The establishment,		34.06	61.64	4.30
Boots, calf	five cases	19.83	80.17	-
The establishment,		32.90	66.54	0.56
Boots, calf	five cases	19.58	79.17	1.25
The establishment,		42.31	57.36	0.33
Boots, calf	twenty-five thousand cases	30.00	70.00	-
The establishment,		29.48	68.81	1.71
Boots, calf (men's)	one pair	38.46	61.54	-
The establishment,		49.64	44.28	6.08
Boots, calf (sewed)	one case	22.22	77.78	-
The establishment,		24.46	72.92	2.62
Boots, congress	twenty-four pairs	26.88	65.72	7.40
The establishment,		28.58	71.20	0.22
Boots, congress	one hundred and forty-two cases	37.29	61.66	1.05
The establishment,		32.60	53.90	13.50
Boots, congress (buff, men's)	twelve pairs	51.17	48.83	-
The establishment,		42.74	53.42	3.84
Boots, congress (buff, men's)	sixty pairs	34.52	65.48	-
The establishment,		31.80	66.74	1.46
Boots, congress (calf, men's)	twenty-four pairs	30.12	52.70	17.18
The establishment,		28.30	68.73	2.97
Boots, congress (Dongola, men's)	twenty-four pairs	24.00	66.00	10.00
The establishment,		35.24	59.73	5.03
Boots, custom	one pair	50.00	50.00	-
The establishment,		61.54	38.46	-

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Materials	Expenses (not specified)
Boots, custom (men's)	one pair	35.00	65.00	—
The establishment,		51.66	34.19	14.15
Boots, fishing	ten cases	25.71	74.29	—
The establishment,		32.15	67.75	0.10
Boots, gaiter (congress, calf)	one pair	43.65	56.35	—
The establishment,		34.63	60.02	5.35
Boots, goat (women's)	sixty pairs	36.17	63.83	—
The establishment,		20.92	76.19	2.89
Boots, grain (women's)	sixty pairs	27.50	72.50	—
The establishment,		14.44	82.23	3.33
Boots, grain and kip	one case	32.14	60.72	7.14
The establishment,		32.63	63.65	3.72
Boots, kid (glove top, women's)	thirty-six pairs	34.88	65.12	—
The establishment,		28.03	70.55	1.42
Boots, kid (women's)	one pair	33.33	55.56	11.11
The establishment,		33.04	60.58	6.38
Boots, kip	one case	15.78	74.84	9.38
The establishment,		23.01	74.18	2.81
Boots, kip	one case	26.81	73.19	—
The establishment,		24.37	71.92	3.71
Boots, kip (pegged)	ten cases	33.33	66.67	—
The establishment,		16.55	82.30	1.15
Boots, machine-sewed	one case	46.67	53.33	—
The establishment,		30.77	67.81	1.42
Boots, men's	one hundred cases	17.74	82.26	—
The establishment,		16.80	81.97	1.23
Boots, Newport button (kid, women's)	thirty-six pairs	36.75	63.25	—
The establishment,		18.62	78.59	2.79
Boots, Newport button (kid, women's)	sixty pairs	41.18	58.82	—
The establishment,		14.25	77.98	7.77
Boots, Newport button (women's)	sixty pairs	31.82	68.18	—
The establishment,		17.78	78.69	3.53
Boots, opera (kid, women's)	thirty-six pairs	32.87	67.13	—
The establishment,		20.57	77.57	1.86
Boots, opera (kid, women's)	thirty-six pairs	39.20	60.80	—
The establishment,		17.29	79.54	3.17
Boots, Polish (buff, women's)	sixty pairs	35.09	64.91	—
The establishment,		14.20	83.80	2.00
Boots, Polish (goat, women's)	sixty pairs	33.33	66.67	—
The establishment,		29.61	67.43	2.96
Boots, serge	sixty pairs	40.00	60.00	—
The establishment,		50.77	49.23	—
Boots, women's	one pair	43.33	56.67	—
The establishment,		73.53	26.47	—
Boots, women's	thirty-six pairs	25.76	74.24	—
The establishment,		42.29	54.89	2.82
Boots, women's	sixty pairs	33.33	66.67	—
The establishment,		43.48	34.78	21.74
Boots and shoes	forty-four thousand pairs	27.27	72.73	—
The establishment,		34.91	64.94	0.15
Boots and shoes	one pair	61.38	38.62	—
The establishment,		38.17	60.63	1.20
Boots and shoes	one pair	40.00	53.33	6.67
The establishment,		33.04	66.96	—
Boots and shoes	one pair	33.46	59.27	7.27
The establishment,		32.76	66.30	0.94
Boots and shoes	one pair	33.57	66.43	—
The establishment,		43.50	54.96	1.54

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Boots and shoes,	one pair	50.00	50.00	-
The establishment,		54.19	34.84	10.97
Boots and shoes,	twelve pairs	13.83	70.00	-
The establishment,		21.16	76.66	2.18
Boots and shoes,	sixty pairs	16.73	45.09	38.18
The establishment,		27.42	70.93	1.65
Boots and shoes,	seventy-two pairs	56.25	43.75	-
The establishment,		52.40	44.91	2.69
Boots and shoes,	one hundred pairs	25.50	57.50	17.00
The establishment,		40.84	56.52	2.64
Boots and shoes,	one hundred and fifty pairs	38.46	61.54	-
The establishment,		38.46	61.54	-
Boots and shoes,	three hundred and fifty-eight pairs	19.28	67.41	13.31
The establishment,		20.41	71.66	7.93
Boots and shoes,	one hundred and eighty thou- sand pairs	33.33	66.67	-
The establishment,		32.99	65.99	1.02
Boots and shoes,	twenty-two thousand, two hundred pairs	28.53	71.47	-
The establishment,		28.28	70.83	0.89
Boots and shoes,	one case	40.00	60.00	-
The establishment,		46.77	51.36	1.87
Boots and shoes,	one case	38.20	61.80	-
The establishment,		34.95	61.11	3.94
Boots and shoes,	seven thousand, eight hundred and eight cases	33.74	66.26	-
The establishment,		33.23	57.23	9.54
Boots and shoes,	one hundred cases	18.94	71.07	9.09
The establishment,		23.66	74.45	1.89
Boots and shoes,	twelve hundred cases	23.40	76.60	-
The establishment,		40.87	56.76	2.37
Boots and shoes,	eighteen hundred cases	35.14	64.86	-
The establishment,		32.60	64.65	2.75
Boots and shoes,	two thousand cases	40.00	55.90	4.10
The establishment,		41.24	57.62	1.14
Boots and shoes,	six thousand cases	30.30	69.70	-
The establishment,		30.27	69.62	0.11
Boots and shoes, calf (men's)	two hundred and forty thou- sand pairs	27.83	55.50	16.67
The establishment,		3.65	93.53	2.82
Boots and shoes, custom	ten pairs	50.00	50.00	-
The establishment,		16.54	56.94	26.52
Boots and shoes, fine	one pair	50.00	25.00	25.00
The establishment,		34.34	34.34	31.32
Boots and shoes (women's)	fifty cases	37.58	61.82	0.60
The establishment,		36.30	56.39	7.31
Box-toes,	one thousand pairs	60.00	40.00	-
The establishment,		14.01	77.60	8.39
Box-toes, leather-board	one thousand pairs	27.27	72.73	-
The establishment,		39.85	37.01	23.14
Brogans,	one thousand cases	21.62	78.38	-
The establishment,		21.52	77.86	0.62
Brogans, calf	one hundred and twenty thou- sand pairs	10.83	66.67	22.50
The establishment,		25.22	74.73	0.05
Brogans, kip	one case	33.33	66.67	-
The establishment,		30.29	65.81	3.90
Brogans, men's	one case	15.00	85.00	-
The establishment,		27.33	72.13	0.54

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Brogans, wax (men's)	one thousand cases	14.10	82.89	3.01
The establishment,		20.72	76.48	2.80
Buskins, goat (turned)	one hundred cases	25.64	66.67	7.69
The establishment,		22.25	74.61	3.14
Button-holes,	one hundred	64.91	35.09	—
The establishment,		49.75	49.75	0.50
Button-holes,	one hundred thousand	64.00	36.00	—
The establishment,		73.34	26.00	0.66
Gaiters, button	one pair	54.96	45.04	—
The establishment,		53.38	43.68	2.94
Gaiters, congress (serge)	one case	28.74	57.47	13.79
The establishment,		28.67	71.33	—
Heeling,	one sheet	27.78	72.22	—
The establishment,		25.56	72.07	2.37
Heeling,	one hundred sheets	30.00	70.00	—
The establishment,		25.26	69.00	5.74
Heeling,	one ton	75.00	25.00	—
The establishment,		64.86	35.14	—
Heeling,	one ton	50.00	50.00	—
The establishment,		34.60	65.40	—
Heeling, pasted	two thousand pounds	33.33	55.56	11.11
The establishment,		24.93	75.07	—
Heeling, sheet	one sheet	21.43	71.43	7.14
The establishment,		27.55	63.99	8.46
Heeling, sheet	one thousand sheets	27.27	72.73	—
The establishment,		40.52	58.95	0.53
Heels,	one pair	28.57	64.29	7.14
The establishment,		23.76	76.04	0.20
Heels,	one pair	40.00	50.00	10.00
The establishment,		41.67	58.33	—
Heels,	sixty pairs	83.33	16.67	—
The establishment,		29.41	70.59	—
Heels,	one thousand heels	16.67	83.33	—
The establishment,		14.33	80.58	5.09
Heels,	one hundred pairs	25.00	62.50	12.50
The establishment,		13.59	85.47	0.94
Heels,	four hundred pairs	52.67	47.33	—
The establishment,		17.41	80.53	2.06
Heels,	one barrel	17.50	75.00	7.50
The establishment,		9.84	89.87	0.29
Heels,	one case	72.31	27.69	—
The establishment,		66.14	27.49	6.37
Heels,	one hundred cases	21.06	78.94	—
The establishment,		21.05	78.95	—
Heels, boot	one thousand pairs	21.32	71.30	7.38
The establishment,		41.81	52.35	5.84
Heels, cut	fifteen cases	11.25	88.33	0.42
The establishment,		17.25	82.16	0.59
Heels, shoe	three hundred and two thou- sand pairs	30.32	60.65	9.03
The establishment,		33.03	66.06	0.91
Heels, shoe	one hundred cases	22.14	77.86	—
The establishment,		24.74	74.59	0.67
Kid stays,	one gross yards	42.86	57.14	—
The establishment,		20.15	75.54	4.31
Leather-board,	one ton	15.00	73.00	12.00
The establishment,		19.03	72.08	8.89
Pasted taps,	ten cases	36.00	60.00	4.00
The establishment,		28.14	70.88	0.98

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Pumps, patent leather (men's) . . .	thirty-six pairs . . .	27.65	72.35	—
The establishment, . . .		11.71	83.28	5.01
Rands,	sixty pairs . . .	13.33	86.67	—
The establishment, . . .		14.32	71.79	13.89
Rubber counters,	two million pairs . . .	33.23	66.75	0.02
The establishment, . . .		29.99	60.26	9.75
Shoe buttons,	one great gross . . .	30.30	69.70	—
The establishment, . . .		37.75	57.43	4.82
Shoe counters,	one thousand pairs . . .	32.50	67.50	—
The establishment, . . .		36.21	62.67	1.12
Shoe elastic,	one thousand yards . . .	13.43	71.64	14.93
The establishment, . . .		24.02	73.55	2.43
Shoe uppers (fitted),	one case	66.67	33.33	—
The establishment, . . .		75.99	21.66	2.35
Shoes,	one pair	36.67	63.33	—
The establishment, . . .		43.45	56.55	—
Shoes,	one pair	37.50	56.25	6.25
The establishment, . . .		40.13	58.13	1.74
Shoes,	one pair	45.00	55.00	—
The establishment, . . .		33.21	61.99	4.80
Shoes,	one pair	34.78	65.22	—
The establishment, . . .		15.82	84.04	0.14
Shoes,	one pair	25.41	74.59	—
The establishment, . . .		26.46	64.09	9.45
Shoes,	one pair	35.71	64.29	—
The establishment, . . .		37.32	58.27	4.41
Shoes,	twelve pairs	38.89	61.11	—
The establishment, . . .		37.52	55.58	6.90
Shoes,	twelve pairs	40.35	42.11	17.54
The establishment, . . .		39.24	61.66	3.10
Shoes,	twenty-four pairs . . .	35.00	65.00	—
The establishment, . . .		27.18	72.49	0.33
Shoes,	twenty-four pairs . . .	30.43	69.57	—
The establishment, . . .		31.84	68.16	—
Shoes,	twenty-four pairs . . .	41.07	51.79	7.14
The establishment, . . .		28.57	71.43	—
Shoes,	sixty pairs	20.34	74.58	5.08
The establishment, . . .		23.84	74.43	1.73
Shoes,	sixty pairs	33.33	66.67	—
The establishment, . . .		8.66	90.86	0.48
Shoes,	sixty pairs	29.55	67.07	3.38
The establishment, . . .		29.12	65.82	5.06
Shoes,	sixty pairs	44.64	47.62	7.74
The establishment, . . .		51.38	48.16	0.46
Shoes,	sixty pairs	24.76	75.24	—
The establishment, . . .		36.17	60.81	3.02
Shoes,	sixty pairs	25.00	75.00	—
The establishment, . . .		28.30	67.24	4.46
Shoes,	seventy-two pairs . . .	56.52	43.48	—
The establishment, . . .		41.90	58.10	—
Shoes,	seventy-two pairs . . .	26.04	52.08	21.88
The establishment, . . .		32.15	60.39	7.46
Shoes,	one case	51.43	37.14	11.43
The establishment, . . .		39.69	38.60	21.62
Shoes,	one case	33.33	66.67	—
The establishment, . . .		39.38	60.14	0.48
Shoes,	one case	20.37	79.63	—
The establishment, . . .		41.20	58.53	0.27

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Shoes,	one case	24.33	62.16	13.51
The establishment,		24.59	74.00	1.41
Shoes,	one case	27.78	72.22	—
The establishment,		34.93	62.34	2.73
Shoes,	one case	46.43	53.57	—
The establishment,		38.77	60.89	0.34
Shoes,	one case	40.00	60.00	—
The establishment,		33.92	62.39	3.69
Shoes,	one case	34.48	65.52	—
The establishment,		31.02	67.76	1.22
Shoes,	one case	38.46	61.54	—
The establishment,		30.62	69.38	—
Shoes,	one case	34.54	52.73	12.73
The establishment,		36.83	61.77	1.40
Shoes,	one case	34.00	66.00	—
The establishment,		37.54	60.37	2.09
Shoes,	ten cases	33.33	66.67	—
The establishment,		31.41	68.14	0.45
Shoes,	one hundred cases	33.33	66.67	—
The establishment,		34.64	62.99	2.37
Shoes,	two hundred cases	62.93	36.79	0.28
The establishment,		53.74	41.59	4.67
Shoes,	six hundred cases	15.15	81.82	3.03
The establishment,		22.56	76.70	0.74
Shoes,	one thousand, four hundred and eighteen cases	21.65	78.35	—
The establishment,		24.07	74.16	1.77
Shoes, balmoral (grain, pegged)	sixty pairs	39.65	48.28	12.07
The establishment,		39.85	60.15	—
Shoes, balmoral (lace, men's)	forty-eight pairs	29.26	66.34	4.40
The establishment,		29.75	66.54	3.71
Shoes, buff	one pair	31.97	68.03	—
The establishment,		36.35	62.48	1.17
Shoes, buff (men's)	twelve hundred pairs	20.98	72.13	6.89
The establishment,		16.68	78.60	4.72
Shoes, buskin	sixty pairs	32.73	67.27	—
The establishment,		28.08	53.34	18.58
Shoes, button (buff, boys')	one case	33.33	65.00	1.67
The establishment,		31.44	68.56	—
Shoes, button (buff, men's)	twelve pairs	17.01	81.30	1.69
The establishment,		26.97	71.16	1.87
Shoes, button (calf, men's)	twelve pairs	37.80	56.69	5.51
The establishment,		30.14	65.28	4.58
Shoes, button (grain)	seventy-two pairs	27.27	72.73	—
The establishment,		52.19	38.87	8.94
Shoes, calf	one pair	40.89	59.11	—
The establishment,		34.44	59.16	6.40
Shoes, calf (men's)	twelve pairs	20.87	73.04	6.09
The establishment,		28.88	61.18	9.94
Shoes, calf (women's)	sixty pairs	28.00	72.00	—
The establishment,		28.07	67.35	4.58
Shoes, children's	sixty pairs	45.45	52.73	1.82
The establishment,		39.37	59.06	1.57
Shoes, children's	seventy-two pairs	55.00	45.00	—
The establishment,		54.64	44.63	0.73
Shoes, children's	thirty-three hundred pairs	35.84	60.49	3.67
The establishment,		36.96	62.37	0.67
Shoes, children's	one case	36.17	63.83	—
The establishment,		27.68	69.00	3.32

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Shoes, children's	one hundred cases	43.20	56.80	—
The establishment,		42.66	56.09	1.25
Shoes, congress	two dozen pairs	14.35	85.65	—
The establishment,		28.44	71.56	—
Shoes, congress (buff)	one case	32.00	68.00	—
The establishment,		31.55	67.89	0.26
Shoes, fine (women's)	one hundred and fifty thou- sand pairs	31.38	68.62	—
The establishment,		26.73	67.68	5.59
Shoes, grain (women's)	one pair	23.08	64.10	12.82
The establishment,		21.58	77.14	1.28
Shoes, hand-sewed	one pair	40.48	49.78	9.74
The establishment,		38.17	56.11	5.72
Shoes, heavy	sixty pairs	20.26	79.74	—
The establishment,		18.82	79.40	1.78
Shoes, low cut	forty-eight thousand pairs	39.07	53.02	7.91
The establishment,		41.30	56.05	2.65
Shoes, men's	twenty-four pairs	17.40	72.00	10.60
The establishment,		27.32	69.34	3.34
Shoes, men's	one pair	32.61	65.22	2.17
The establishment,		29.95	65.34	4.71
Shoes, men's	one pair	40.00	60.00	—
The establishment,		39.40	59.57	1.03
Shoes, men's	twelve pairs	33.33	53.34	13.33
The establishment,		39.55	53.84	0.61
Shoes, men's	five hundred pairs	32.73	67.27	—
The establishment,		36.08	62.44	1.48
Shoes, men's	one thousand cases	22.45	77.55	—
The establishment,		23.04	76.44	0.52
Shoes, misses and children's	one hundred and seventy- five thousand pairs	17.54	75.44	7.02
The establishment,		31.71	66.07	2.22
Shoes, opera (French kid, women's)	thirty-six pairs	35.71	64.29	—
The establishment,		8.31	90.51	1.18
Shoes, opera (goat, men's)	sixty pairs	30.11	69.54	0.35
The establishment,		13.68	81.56	4.76
Shoes, opera (kid)	sixty pairs	42.86	50.00	7.14
The establishment,		14.68	84.03	1.29
Shoes, opera (kid, women's)	thirty-six pairs	40.00	60.00	—
The establishment,		12.06	85.17	2.77
Shoes, opera (kid, women's)	sixty pairs	38.71	61.29	—
The establishment,		20.51	78.62	0.87
Shoes, opera (kid, women's)	sixty pairs	35.90	64.10	—
The establishment,		11.50	86.72	1.78
Shoes, opera (kid, women's)	sixty pairs	46.15	53.85	—
The establishment,		6.46	85.08	8.46
Shoes, opera (kid, women's)	sixty pairs	34.88	65.12	—
The establishment,		15.33	81.82	2.85
Shoes, Oxford tie (Dongola, men's)	twenty four pairs	39.05	69.95	—
The establishment,		37.80	59.64	2.56
Shoes, Oxford tie (kid, women's)	sixty pairs	31.37	68.63	—
The establishment,		6.39	93.61	—
Shoes, Polish (buff, women's)	sixty pairs	25.64	47.44	26.92
The establishment,		24.23	73.13	2.59
Shoes, Polish (buff, women's)	sixty pairs	30.00	70.00	—
The establishment,		26.88	68.01	5.11
Shoes, Polish (calf, pegged, women's)	sixty pairs	31.00	69.00	—
The establishment,		16.31	80.72	2.97
Shoes, Polish (grain, women's)	sixty pairs	23.23	76.77	—
The establishment,		23.12	74.11	2.77

BOOTS AND SHOES — Continued.

NAMES OF ARTICLES. ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Shoes, sewed	twelve pairs	41.03	51.28	7.69
The establishment,		35.85	62.79	1.36
Shoes, tie (kid, women's)	sixty pairs	30.83	69.17	—
The establishment,		6.25	92.50	1.25
Shoes, veal calf	twenty-four pairs	33.14	1.43	65.43
The establishment,		23.60	68.92	2.48
Shoes, veal calf	one thousand cases	21.42	78.58	—
The establishment,		23.69	73.97	2.34
Shoes, women's	one pair	27.10	72.90	—
The establishment,		23.32	76.23	0.45
Shoes, women's	thirty-six pairs	31.03	68.97	—
The establishment,		23.11	75.58	1.31
Shoes, women's	sixty pairs	19.74	80.26	—
The establishment,		25.10	73.11	1.79
Shoes, women's	one hundred and eighty thou- sand pairs	25.52	58.53	12.95
The establishment,		31.98	65.62	2.40
Shoes, women's	one case	23.33	76.67	—
The establishment,		21.20	78.22	0.49
Shoes, women's	ten cases	32.71	67.20	—
The establishment,		17.28	80.79	1.93
Slippers,	one pair	31.25	68.75	—
The establishment,		30.35	69.65	—
Slippers,	sixty pairs	41.02	53.85	5.13
The establishment,		29.14	69.84	1.02
Slippers,	sixty pairs	38.30	61.70	—
The establishment,		25.33	73.37	1.39
Slippers,	sixty pairs	43.86	56.14	—
The establishment,		32.28	67.72	—
Slippers,	ten thousand two hundred pairs	40.36	59.64	—
The establishment,		40.96	57.00	2.04
Slippers,	one case	8.13	83.75	8.12
The establishment,		8.64	89.10	2.26
Slippers, buckskin (men's)	sixty pairs	23.00	77.00	—
The establishment,		20.47	77.57	1.96
Slippers, carpet	one hundred and fifty thou- sand pairs	33.33	66.67	—
The establishment,		34.75	56.03	9.17
Slippers, children's	sixty pairs	50.00	50.00	—
The establishment,		2.31	96.32	1.37
Slippers, croquet	one hundred and fifty cases	46.97	53.03	—
The establishment,		46.05	52.05	1.90
Slippers, goat (men's)	sixty pairs	33.33	66.67	—
The establishment,		37.29	60.23	2.48
Slippers, kid	sixty pairs	41.67	58.33	—
The establishment,		30.52	64.67	4.81
Slippers, kid (women's)	one pair	28.00	72.00	—
The establishment,		40.21	59.61	0.18
Slippers, kid (women's)	sixty pairs	37.50	49.50	13.00
The establishment,		23.78	74.64	1.58
Slippers, kid (women's)	sixty pairs	30.86	69.14	—
The establishment,		12.26	85.15	2.59
Slippers, kid (women's)	sixty pairs	33.33	66.67	—
The establishment,		10.69	87.82	1.49
Slippers, kid (women's)	sixty pairs	42.12	57.88	—
The establishment,		12.56	85.35	2.09
Slippers, kid (women's)	sixty pairs	52.63	47.37	—
The establishment,		11.57	86.50	1.93

BOOTS AND SHOES — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Slippers, kid (women's)	sixty pairs	35.71	64.29	—
The establishment,		3.26	96.15	0.59
Slippers, kid (women's)	one case	36.04	63.96	—
The establishment,		8.13	90.06	1.81
Slippers, sheepskin	one dozen pairs	22.22	77.78	—
The establishment,		47.05	50.34	2.61
Slippers, velvet (men's)	sixty pairs	41.18	58.82	—
The establishment,		30.88	65.13	3.99
Slippers, women's	one pair	34.00	66.00	—
The establishment,		—	100.00	—
Slippers, women's	one pair	42.86	57.14	—
The establishment,		52.62	46.71	0.67
Slippers, women's	twelve pairs	35.71	64.29	—
The establishment,		31.14	62.27	6.59
Slippers, women's	thirty-six pairs	39.22	60.78	—
The establishment,		40.77	59.23	—
Slippers, women's	sixty pairs	29.09	58.18	12.73
The establishment,		33.62	66.38	—
Slippers, women's	one hundred pairs	44.44	55.56	—
The establishment,		45.14	54.86	—
Soles,	one thousand pairs	5.26	94.74	—
The establishment,		2.41	96.35	1.24
Soles,	one hundred cases	3.33	96.67	—
The establishment,		2.67	92.82	4.51
Soles, inner	sixty pairs	6.00	92.00	2.00
The establishment,		15.93	84.07	—
Soles, inner	one case	19.05	80.95	—
The establishment,		68.22	21.70	10.08
Soles, inner	one case	50.00	50.00	—
The establishment,		35.89	61.17	2.94
Soles, inner	one hundred cases	58.00	42.00	—
The establishment,		52.87	45.89	1.24
Soles, tap	twelve hundred pairs	20.00	80.00	—
The establishment,		19.80	72.79	7.41
Tips, sole-leather	ten thousand pairs	5.11	94.45	0.44
The establishment,		9.98	86.60	3.42
Tips, sole-leather	one thousand pairs	14.54	83.64	1.82
The establishment,		10.10	85.61	4.29
Wax,	one barrel	33.25	59.00	7.75
The establishment,		34.26	64.57	1.17

BOXES (PAPER AND WOODEN).

Box-boards,	one thousand feet	18.75	81.25	—
The establishment,		40.27	51.96	7.77
Boxes,	one thousand feet	36.14	63.86	—
The establishment,		36.11	63.80	0.09
Boxes,	one hundred	31.25	64.75	4.00
The establishment,		46.04	30.19	23.77
Boxes,	four hundred and eighty-six	25.51	51.02	23.47
The establishment,		26.32	52.63	21.05
Boxes,	five hundred and twenty	39.10	60.90	—
The establishment,		51.19	46.88	1.93
Boxes,	one thousand	50.00	50.00	—
The establishment,		34.75	50.96	14.29
Boxes,	ninety thousand	26.47	73.53	—
The establishment,		25.72	71.64	2.64

BOXES (PAPER AND WOODEN) — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Boxes, boot and shoe	one	79.17	20.83	—
The establishment,		21.51	77.72	0.77
Boxes, boot and shoe	one	30.77	69.23	—
The establishment,		26.85	61.83	11.32
Boxes, boot and shoe	one	28.00	72.00	—
The establishment,		17.63	78.73	3.64
Boxes, button-hook	two hundred	25.00	50.00	25.00
The establishment,		28.78	71.22	—
Boxes, cigar	one	51.43	48.57	—
The establishment,		50.78	49.22	—
Boxes, locked corner	one thousand	41.38	58.62	—
The establishment,		42.70	55.74	1.56
Boxes, packing	one thousand feet	23.81	76.19	—
The establishment,		27.44	70.28	2.28
Boxes, packing	one thousand feet	24.14	75.86	—
The establishment,		24.96	74.89	0.15
Boxes, packing	one	25.00	75.00	—
The establishment,		18.06	81.94	—
Boxes, packing	ten	25.57	73.29	1.14
The establishment,		27.08	64.70	8.22
Boxes, packing	two hundred and fifty	12.25	77.08	10.67
The establishment,		26.11	63.08	10.81
Boxes, packing	fifteen hundred	20.00	54.17	25.83
The establishment,		38.22	60.42	1.36
Boxes, packing (for straw goods)	one thousand feet	35.00	65.00	—
The establishment,		28.34	67.80	3.86
Boxes, packing (jewellers')	one thousand	31.11	62.22	6.67
The establishment,		62.61	35.96	1.43
Boxes, paper	one hundred	25.00	75.00	—
The establishment,		45.13	34.92	19.95
Boxes, paper	one hundred	27.69	33.85	38.46
The establishment,		62.89	35.64	1.47
Boxes, paper	one hundred	26.67	73.33	—
The establishment,		47.58	52.42	—
Boxes, paper	one thousand	76.92	23.08	—
The establishment,		49.75	40.36	9.89
Boxes, paper	one thousand	12.94	76.52	10.54
The establishment,		14.46	62.10	23.44
Boxes, paper	one thousand	46.67	53.33	—
The establishment,		36.45	60.23	3.32
Boxes, paper	one thousand	63.83	26.17	—
The establishment,		41.47	46.89	11.64
Boxes, paper	one thousand	45.57	50.63	3.80
The establishment,		40.54	59.46	—
Boxes, paper	one thousand	45.46	29.09	25.45
The establishment,		56.02	35.86	8.12
Boxes, paper	one thousand	37.50	62.50	—
The establishment,		41.79	54.29	3.92
Boxes, paper	four thousand	44.44	44.44	11.12
The establishment,		43.45	47.39	9.16
Boxes, paper	one hundred and sixty-four thousand, three hundred and sixty-six	55.11	43.08	1.81
The establishment,		55.62	43.47	0.91
Boxes, paper	seven hundred thousand	21.95	32.66	45.39
The establishment,		39.21	58.35	2.44
Boxes, shoe	one thousand	30.00	70.00	—
The establishment,		37.81	44.98	17.21

BOXES (PAPER AND WOODEN) — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Boxes, shoe	one	75.00	25.00	—
The establishment,		16.22	83.78	—
Boxes, shoe	one hundred	25.00	75.00	—
The establishment,		35.87	60.45	3.68
Boxes, shoe	one hundred	40.00	35.00	25.00
The establishment,		29.02	53.21	17.77
Boxes, shoe	one thousand	35.00	65.00	—
The establishment,		36.84	63.16	—
Boxes, shoe	one thousand	17.86	76.43	5.71
The establishment,		23.67	69.47	6.86
Boxes, stove polish	one hundred	33.33	66.67	—
The establishment,		28.26	68.30	3.44
Boxes, wooden	one thousand feet	32.26	67.74	—
The establishment,		36.50	62.04	1.46
Boxes, wooden	one thousand feet	22.00	72.00	6.00
The establishment,		36.55	53.53	9.92
Boxes, wooden	one thousand feet	36.84	63.16	—
The establishment,		19.01	79.77	1.22
Boxes, wooden	one hundred	24.11	75.89	—
The establishment,		22.47	74.07	3.46
Boxes, wooden	thirty-five hundred	30.83	69.17	—
The establishment,		30.83	69.17	—
Cases, boot	one hundred	26.67	73.33	—
The establishment,		33.01	66.02	0.97
Cases, dry goods	ten	9.23	90.77	—
The establishment,		10.13	88.61	1.26
Trunk woods,	one hundred dozen	30.43	43.48	26.09
The establishment,		37.12	58.60	4.28

BRICK, TILES, AND SEWER PIPE.

Brick,	one thousand	75.60	24.40	—
The establishment,		75.34	24.38	0.28
Brick,	one thousand	63.64	36.36	—
The establishment,		34.87	62.52	2.61
Brick,	one thousand	50.53	14.52	34.95
The establishment,		59.60	40.16	0.24
Brick,	one thousand	94.74	5.26	—
The establishment,		59.36	40.64	—
Brick,	one thousand	60.00	40.00	—
The establishment,		57.68	39.34	2.98
Brick,	one thousand	55.24	44.76	—
The establishment,		46.01	53.99	—
Brick,	one thousand	55.56	44.44	—
The establishment,		40.39	32.01	27.60
Brick,	one thousand	80.77	19.23	—
The establishment,		76.19	23.81	—
Brick,	one thousand	46.75	35.00	18.25
The establishment,		55.45	41.58	2.97
Brick,	one thousand	63.22	36.78	—
The establishment,		58.60	33.70	7.70
Brick,	one thousand	70.00	30.00	—
The establishment,		68.97	31.03	—
Brick,	one thousand	55.36	44.64	—
The establishment,		54.29	43.75	1.96
Brick,	one thousand	81.82	18.18	—
The establishment,		83.33	16.67	—

BRICK, TILES, AND SEWER PIPE—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Brick,	one thousand	60.00	40.00	—
The establishment,		71.34	25.67	2.99
Brick,	one thousand	70.00	30.00	—
The establishment,		76.64	23.36	—
Brick,	one thousand	60.00	40.00	—
The establishment,		63.46	36.54	—
Brick,	one thousand	42.22	27.78	30.00
The establishment,		67.04	31.76	1.20
Brick,	one hundred thousand	50.00	50.00	—
The establishment,		40.88	54.37	4.75
Brick,	one hundred thousand	42.78	11.67	45.55
The establishment,		36.03	20.36	43.61
Brick,	two hundred thousand	91.88	8.12	—
The establishment,		91.88	8.12	—
Brick,	two hundred thousand	92.01	7.99	—
The establishment,		88.82	7.71	3.47
Brick,	two hundred and fifty thou- sand	62.50	37.50	—
The establishment,		62.50	37.50	—
Brick,	thirteen hundred thousand	68.97	20.69	10.34
The establishment,		67.95	20.39	11.66
Brick,	fifteen hundred thousand	75.06	24.94	—
The establishment,		75.06	24.94	—
Brick,	one thousand	70.74	29.26	—
The establishment,		65.80	32.89	1.31
Brick,	one thousand	64.35	28.33	7.32
The establishment,		66.78	29.48	3.74
Brick, face	one thousand	45.84	33.33	20.83
The establishment,		52.67	47.33	—
Brick, face	one thousand	65.00	35.00	—
The establishment,		55.44	42.07	2.49
Brick, fire	eight hundred and thirty thousand	30.12	36.20	33.68
The establishment,		33.27	39.99	26.74
Brick, red	one thousand	59.60	20.11	20.29
The establishment,		74.25	25.00	0.75
Pipe, cement	seventy-two feet	31.25	42.53	26.22
The establishment,		43.16	55.22	1.62
Pipe, drain	one hundred feet	50.00	50.00	—
The establishment,		45.37	54.45	0.18
Stone (artificial) and pipe,		48.16	22.95	28.89
The establishment,		48.16	*22.95	28.89

BROOMS, BRUSHES, AND MOPS.

Brooms,	one dozen	28.57	71.43	—
The establishment,		29.09	69.83	1.03
Brooms,	one dozen	41.67	58.33	—
The establishment,		29.16	60.75	10.09
Brooms,	one dozen	16.50	71.00	12.50
The establishment,		18.87	81.13	—
Brooms,	one dozen	15.56	84.44	—
The establishment,		19.56	80.44	—
Brooms,	one dozen	25.00	75.00	—
The establishment,		37.83	59.93	2.24
Brooms,	one dozen	27.91	71.16	0.93
The establishment,		25.11	73.81	1.08

BROOMS, BRUSHES, AND MOPS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Brooms,	one dozen	29.44	70.56	—
The establishment,		29.14	69.48	1.38
Brooms,	ten dozen	28.57	71.43	—
The establishment,		5.16	94.58	0.26
Brooms,	one hundred dozen	37.14	58.29	4.57
The establishment,		38.88	61.02	0.10
Brooms,	one hundred	33.31	66.69	—
The establishment,		31.95	67.84	0.21
Brooms, corn	twenty-five dozen	25.71	74.29	—
The establishment,		20.43	73.90	5.67
Brushes, cylinder	three hundred and thirty	12.12	30.30	57.58
The establishment,		25.65	68.83	5.52
Brushes, jewellers'	one hundred and fifty gross	17.70	82.30	—
The establishment,		48.18	47.22	4.60
Brushes, tooth	one gross	76.95	23.05	—
The establishment,		46.80	29.90	23.30
Brushes, tooth	one gross	37.50	62.50	—
The establishment,		52.80	42.24	4.96

BUILDING.

Brick,	one thousand	63.16	36.84	—
The establishment,		60.49	37.45	2.06
Bridges, railroad (iron)	four million, two hundred and forty thousand pounds	26.14	59.26	14.60
The establishment,		28.05	63.59	8.36
DOORS,	two	72.41	27.59	—
The establishment,		35.84	51.61	12.55
DOORS,	one hundred	50.00	50.00	—
The establishment,		33.33	66.67	—
DOORS,	one hundred	25.00	75.00	—
The establishment,		35.57	54.34	10.09
DOORS,	one hundred	58.33	41.67	—
The establishment,		26.48	31.25	42.27
Earth closets,	one	40.00	60.00	—
The establishment,		28.57	71.43	—
Fireproof blocks,	one thousand feet	45.71	54.29	—
The establishment,		56.39	32.91	10.70
Flooring, wood (mosaic)	one square foot	47.83	17.39	34.78
The establishment,		41.99	25.41	32.60
Foundations, brick	one thousand	41.18	58.82	—
The establishment,		46.39	51.18	2.43
Houses,	one	36.11	63.89	—
The establishment,		36.93	63.07	—
Houses, cottage . . . . .	. . . . .	41.50	58.50	—
The establishment,		29.33	70.67	—
Houses, cottage	one	13.33	86.67	—
The establishment,		42.15	57.85	—
Lathing and plastering,	one hundred yards	52.82	47.18	—
The establishment,		60.39	39.61	—
Masonry,	one perch	38.46	61.54	—
The establishment,		65.22	34.78	—
Moulding,	one thousand feet	28.57	71.43	—
The establishment,		48.20	48.33	3.47
Moulding,	one thousand feet	30.77	69.23	—
The establishment,		26.37	59.90	13.73
Moulding,	one thousand feet	21.43	78.57	—
The establishment,		32.81	64.27	2.92
Moulding, pine	one thousand feet	20.00	80.00	—
The establishment,		41.38	54.53	4.09

BUILDING—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Painting, house	one	75.00	25.00	—
The establishment,		73.57	24.52	1.91
Painting, house	one hundred yards	60.00	40.00	—
The establishment,		50.00	50.00	—
Painting, sign	one hundred and thirty signs	76.92	23.08	—
The establishment,		62.78	30.85	6.37
Painting and glazing,	ten houses	44.44	55.56	—
The establishment,		70.42	20.60	8.98
Paints, roof	one gallon	13.33	86.67	—
The establishment,		68.25	29.07	2.68
Pipe, cement	one foot	40.00	60.00	—
The establishment,		19.54	36.92	43.54
Pitch,	one hundred and twenty-five barrels	14.29	71.43	14.28
The establishment,		11.49	80.40	8.11
Refrigerators,	one	50.00	50.00	—
The establishment,		67.62	32.38	—
Roofing, gravel	one hundred feet	16.81	0.33	82.86
The establishment,		16.61	81.62	1.77
Roofing, gravel	one hundred square feet	11.11	88.89	—
The establishment,		37.28	61.39	1.33
Roofing, slate	twenty squares	25.00	75.00	—
The establishment,		38.22	61.78	—
Sashes and blinds,	one hundred and fifty blinds; one hundred windowsashes	43.48	47.83	8.69
The establishment,		37.07	60.77	2.16
Signs,	one	60.00	40.00	—
The establishment,		27.03	45.94	27.03
Signs,	one hundred	75.00	25.00	—
The establishment,		55.46	44.54	—
Skylights,	one thousand square feet	50.00	50.00	—
The establishment,		30.98	62.44	6.58
Stair posts,	one dozen	62.50	37.50	—
The establishment,		24.18	66.15	9.67
Stair rails,	one thousand feet	19.35	80.65	—
The establishment,		56.52	36.46	7.02
Stairs,	one flight	56.29	43.71	—
The establishment,		50.59	39.29	10.12
Windows,	one hundred	13.79	86.21	—
The establishment,		38.66	57.07	4.27

BURIAL CASES, CASKETS, COFFINS, ETC.

Burial cases,	one	55.88	44.12	—
The establishment,		67.72	32.28	—
Burial cases, cement	one	40.00	60.00	—
The establishment,		57.07	36.68	6.25
Coffin ornaments,	one gross	40.00	60.00	—
The establishment,		38.46	53.74	7.80
Coffins and caskets,	two hundred	30.85	69.15	—
The establishment,		42.51	47.99	9.50

BUTTONS AND DRESS TRIMMINGS.

Braid, linen	ten thousand yards	33.33	57.14	9.53
The establishment,		35.20	58.60	6.20
Braid, silk and mohair	one gross	16.11	83.89	—
The establishment,		10.26	79.34	10.40

BUTTONS AND DRESS TRIMMINGS—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Buttons, cloth-covered	one gross	21.62	56.76	21.62
The establishment,		22.59	72.94	4.47
Buttons, cloth-covered	one hundred gross	28.07	19.30	52.63
The establishment,		29.51	18.71	51.78
Buttons, ivory	one hundred gross	59.70	17.91	22.39
The establishment,		48.21	32.76	19.03
Buttons, metal	twenty-six thousand and forty-eight gross	55.16	38.83	6.01
The establishment,		46.31	37.84	15.85
Buttons, pearl	one hundred gross	76.92	9.62	13.46
The establishment,		59.76	26.35	13.89

CARPETINGS.

Carpeting,	one yard	18.99	81.01	—
The establishment,		20.12	74.91	4.97
Carpeting,	one thousand yards	29.05	70.95	—
The establishment,		24.26	72.96	2.78
Carpeting, Brussels	one yard	17.05	82.95	—
The establishment,		16.19	78.43	5.38
Carpeting, ingrain	one roll	31.01	68.99	—
The establishment,		28.77	66.79	4.44
Carpeting, tapestry	one yard	25.81	74.19	—
The establishment,		28.66	67.00	4.34
Cloth, enamelled	five hundred and fifty-four thousand, six hundred and eight yards	11.17	75.51	13.32
The establishment,		11.05	82.15	6.80
Mats, brush	one dozen	60.00	40.00	—
The establishment,		66.20	30.49	3.31
Mats, brush (cocoa)	one thousand square feet . .	58.62	41.38	—
The establishment,		30.93	48.74	20.33
Mats, chain-loop	one hundred square feet . .	38.46	42.31	19.23
The establishment,		29.23	63.61	7.16
Oakum, cotton	one hundred pounds	10.00	83.33	6.67
The establishment,		5.62	94.38	—

CARRIAGES AND WAGONS.

Axles, carriage	ten sets	33.33	66.67	—
The establishment,		31.30	57.00	11.70
Axles, carriage	one thousand	38.89	61.11	—
The establishment,		27.79	64.97	7.24
Bodies, Goddard buggy	one	75.86	13.79	10.35
The establishment,		78.11	15.47	6.42
Bodies, wagon	one	66.67	33.33	—
The establishment,		65.57	27.46	6.97
Buggies, Concord	one	47.62	52.38	—
The establishment,		50.47	44.35	5.18
Buggies, Goddard	one	40.00	60.00	—
The establishment,		58.07	33.06	8.87
Buggies, top	one	55.00	45.00	—
The establishment,		54.26	34.80	10.94
Buggies, top	one	31.67	68.33	—
The establishment,		21.87	64.39	13.74
Cabs,	one hundred	50.00	31.25	18.75
The establishment,		48.84	51.16	—

CARRIAGES AND WAGONS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Cabriolets, extension-top	one	28.24	71.76	—
The establishment,		35.11	62.59	2.30
Carriages,	one	50.00	50.00	—
The establishment,		52.86	38.51	8.63
Carriages,	one	50.00	50.00	—
The establishment,		63.64	36.36	—
Carriages,	one	40.00	60.00	—
The establishment,		49.49	47.85	2.66
Carriages,	one	44.44	55.56	—
The establishment,		54.42	44.42	1.16
Carriages,	one	33.14	62.86	4.00
The establishment,		29.36	70.64	—
Carriages,	one	43.33	56.67	—
The establishment,		47.24	51.79	0.97
Carriages,	one	49.71	50.29	—
The establishment,		57.97	34.78	7.25
Carriages,	one	74.67	25.33	—
The establishment,		87.42	12.58	—
Carriages,	one	40.00	40.00	20.00
The establishment,		45.50	54.50	—
Carriages,	twenty-five	50.00	50.00	—
The establishment,		58.07	34.19	7.74
Carriages,	fifty	42.86	57.14	—
The establishment,		56.68	41.07	2.25
Carriages,	one hundred	15.00	40.00	45.00
The establishment,		15.46	84.54	—
Carts, delivery	one	44.25	55.75	—
The establishment,		50.30	35.42	14.28
Coaches,	one	38.35	61.65	—
The establishment,		55.08	42.58	2.34
Herdics,	one	66.67	33.33	—
The establishment,		85.31	6.41	8.28
Hub caps (for baby carriages), . .	one pair	34.29	57.14	8.57
The establishment,		33.37	66.63	—
Wagons,	one	63.00	37.00	—
The establishment,		52.22	47.00	0.78
Wagons,	one	50.00	50.00	—
The establishment,		53.41	40.05	6.54
Wagons,	one	44.44	55.56	—
The establishment,		62.83	37.17	—
Wagons,	one	66.67	33.33	—
The establishment,		38.39	48.50	13.11
Wagons,	one	66.67	33.33	—
The establishment,		62.05	37.61	0.34
Wagons,	one	50.00	50.00	—
The establishment,		59.63	34.34	6.03
Wagons, business	ten	45.00	45.00	10.00
The establishment,		29.34	67.85	2.81
Wagons, butcher	one	49.66	13.10	37.24
The establishment,		54.26	42.70	3.04
Wagons, express	one	64.52	32.26	3.22
The establishment,		—	97.56	2.44
Wagons, express	one	25.00	35.00	40.00
The establishment,		35.29	44.24	20.47
Wagons, hose	one	78.67	21.33	—
The establishment,		52.60	38.96	8.44
Wagons, ice	one	48.00	52.00	—
The establishment,		32.85	63.08	4.07
Wheels, carriage	one set	33.33	66.67	—
The establishment,		30.57	50.96	18.47

CARRIAGES AND WAGONS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Woodwork, carriage	one piece	57.14	42.86	—
The establishment,		61.35	37.01	1.64
Woodwork, grocery wagon . . .	one	57.50	42.50	—
The establishment,		66.96	23.73	9.31

CEMENT, KAOLIN, LIME, AND PLASTER.

Cement, elastic	one ton	50.00	50.00	—
The establishment,		27.79	71.21	1.00
Flint,	one ton	45.83	54.17	—
The establishment,		31.76	36.40	31.84
Lime,	one barrel	31.43	57.14	11.43
The establishment,		36.09	63.91	—
Lime,	one barrel	22.40	77.60	—
The establishment,		19.45	79.94	0.61
Lime,	ten thousand barrels . . .	27.03	72.97	—
The establishment,		27.03	72.97	—
Lime,	one ton	21.88	78.12	—
The establishment,		40.31	57.02	2.67

CHEMICAL PREPARATIONS (COMPOUNDED).

Disinfectants,	one thousand gallons . . .	4.76	95.24	—
The establishment,		9.27	90.73	—

CLOCKS AND WATCHES.

Mantel clocks,	one hundred clocks . . .	50.00	10.00	40.00
The establishment,		77.06	7.54	15.40

CLOTHING.

Bonnets,	one	20.00	80.00	—
The establishment,		10.15	79.28	10.57
Bows,	one dozen	18.18	81.82	—
The establishment,		19.47	77.89	2.64
Chemises, women's	one dozen	24.00	76.00	—
The establishment,		31.85	53.16	14.99
Cloaks,	one	25.00	75.00	—
The establishment,		23.08	76.92	—
Clothing,	one coat	40.00	40.00	20.00
The establishment,		42.51	38.12	19.37
Clothing,	one suit	34.78	65.22	—
The establishment,		34.27	65.62	0.11
Clothing,	one suit	39.29	60.71	—
The establishment,		43.56	50.81	5.63
Clothing,	one suit	30.77	69.23	—
The establishment,		41.09	58.91	—
Clothing,	one suit	38.64	61.36	—
The establishment,		25.59	74.41	—
Clothing,	one suit	36.00	64.00	—
The establishment,		53.10	46.90	—
Clothing,	one suit	31.85	55.56	12.59
The establishment,		30.58	55.58	13.84

CLOTHING — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Clothing,	one suit	38.46	51.28	10.26
The establishment,		36.77	61.60	1.63
Clothing,	one suit	50.00	50.00	—
The establishment,		33.79	65.83	0.38
Clothing,	one hundred suits	37.50	53.13	9.37
The establishment,		38.26	54.21	7.53
Clothing, custom	one suit	35.03	64.97	—
The establishment,		31.72	60.21	8.07
Clothing, men's	one suit	30.91	49.09	20.00
The establishment,		48.37	49.81	1.82
Clothing, oiled	one piece	30.00	70.00	—
The establishment,		44.36	46.06	9.58
Clothing, oiled	one hundred pieces	52.00	26.67	21.33
The establishment,		43.55	54.30	2.15
Coats,	one	16.29	83.71	—
The establishment,		11.62	83.01	5.37
Corsets and waists,	one dozen	44.13	46.31	9.56
The establishment,		38.93	38.78	22.29
Dresses,	one	20.00	80.00	—
The establishment,		23.08	62.13	14.79
Dresses, silk	eighteen	10.87	89.13	—
The establishment,		20.45	74.10	5.45
Dresses, woollen	one	71.43	28.57	—
The establishment,		19.47	76.64	3.89
Hat bodies,	one dozen	48.61	51.39	—
The establishment,		40.63	54.18	5.19
Hats,	one	20.00	80.00	—
The establishment,		15.00	70.00	15.00
Hats,	one dozen	45.56	50.00	4.44
The establishment,		45.93	31.05	23.02
Hats, bonnets, etc., . . . . .	. . . . .	13.04	86.96	—
The establishment,		6.42	64.18	29.40
Hats, wool	twenty-nine thousand, three hundred and five dozen	32.43	66.65	0.92
The establishment,		31.47	64.67	3.86
Hats, wool	one dozen	28.57	71.43	—
The establishment,		27.48	70.95	1.57
Hats, wool	one hundred dozen	33.24	33.52	33.24
The establishment,		34.38	61.37	4.25
Hats, wool	one hundred dozen	25.57	51.43	23.00
The establishment,		30.93	61.94	7.13
Muffs, beaver	twenty-four	13.45	86.55	—
The establishment,		16.11	81.72	2.17
Overalls, duck	fifty dozen	30.31	69.69	—
The establishment,		26.25	61.97	11.78
Overalls, men's	one pair	17.39	82.61	—
The establishment,		16.93	80.41	2.66
Pantaloon,	fifty pairs	16.42	78.47	5.11
The establishment,		5.57	92.21	2.22
Pantaloon,	eighty-three hundred pairs	7.47	63.60	28.93
The establishment,		7.11	81.50	11.39
Roses,	one gross	40.44	59.56	—
The establishment,		50.16	49.84	—
Ruffings,	one hundred boxes	20.00	60.00	20.00
The establishment,		14.70	72.63	12.67
Sacks, sealskin	one	26.04	73.96	—
The establishment,		32.18	66.67	1.15
Sacks, sealskin	one	12.12	87.88	—
The establishment,		13.93	78.64	7.43

CLOTHING — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Shirts,	one dozen	38.33	61.67	—
The establishment,		51.97	48.03	—
Shirts,	one dozen	50.00	50.00	—
The establishment,		35.02	47.37	17.61
Shirts,	one dozen	37.67	51.62	10.71
The establishment,		39.52	56.12	4.36
Shirts, custom	one dozen	69.10	30.90	—
The establishment,		68.44	27.17	4.39
Shirts, custom	one dozen	56.76	43.24	—
The establishment,		31.72	49.32	18.96
Shirts (fine),	one dozen	39.91	69.09	—
The establishment,		24.08	67.34	8.58
Suits,	one	42.86	57.14	—
The establishment,		1.79	93.38	4.83
Suits,	one	40.00	60.00	—
The establishment,		39.39	59.08	1.53
Suits,	one hundred	31.11	68.89	—
The establishment,		13.19	85.94	0.87
Suits,	one	34.78	56.52	8.70
The establishment,		44.83	42.09	13.08
Suits,	one	46.88	53.12	—
The establishment,		43.68	51.28	5.04
Suits, dress	one	31.82	68.18	—
The establishment,		46.60	50.62	2.78
Suits, men's	one	40.00	60.00	—
The establishment,		37.95	40.25	21.80
Supporters, hose	one gross	28.69	57.38	13.93
The establishment,		20.14	75.12	4.74
Suspenders,	ten dozen pairs	33.00	67.00	—
The establishment,		22.51	61.54	15.95
Suspenders,	one dozen pairs	30.40	69.60	—
The establishment,		29.31	69.38	1.31
Suspenders,	one hundred dozen pairs	30.30	60.02	9.68
The establishment,		33.37	61.95	4.68
Suspenders (trimmings for),	one set	45.83	54.17	—
The establishment,		82.17	17.83	—
Umbrellas,	one hundred	15.11	84.89	—
The establishment,		10.77	82.64	6.59
Waists,	one dozen	47.58	48.39	4.03
The establishment,		15.73	71.95	12.32
Wrappers, calico	one dozen	22.22	77.78	—
The establishment,		20.46	77.19	2.35
Wrappers, women's	one hundred dozen	25.00	70.00	5.00
The establishment,		25.13	67.42	7.45

CONCRETE WALKS, PAVING, ETC.

Concrete,	one hundred yards	70.00	30.00	—
The establishment,		80.55	19.45	—
Sidewalks and driveways,	one hundred yards	57.14	42.86	—
The establishment,		65.26	33.20	1.54

COOKING, LIGHTING, AND HEATING APPARATUS.

Fire-brick,	one thousand	35.35	51.72	12.93
The establishment,		53.77	33.48	12.75

COOKING, LIGHTING, AND HEATING APPARATUS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Furnaces, hot-air	two hundred	48.13	50.31	1.56
The establishment,		42.22	34.96	22.82
Furnaces, house	one ton	50.00	50.00	—
The establishment,		49.32	43.99	6.69
Lanterns,	one dozen	41.67	58.33	—
The establishment,		49.68	42.90	7.42
Linings, stove	one hundred sets	70.59	29.41	—
The establishment,		46.68	44.82	8.50
Linings, stove	one hundred sets	37.50	37.50	25.00
The establishment,		37.44	42.27	20.29
Linings, stove	one ton	73.68	22.37	3.95
The establishment,		35.27	47.77	16.96
Ranges,	one	66.67	33.33	—
The establishment,		62.70	33.56	3.74
Ranges, portable	one ton	52.71	47.29	—
The establishment,		59.47	36.39	4.14
Reflectors,	one	40.00	10.00	50.00
The establishment,		42.63	21.67	35.70
Registers, hot-air	one hundred	21.43	78.57	—
The establishment,		20.39	76.48	3.13
Repairing stoves, . . . .	. . . . .	40.00	60.00	—
The establishment,		66.37	32.43	1.20
Stoves,	one ton	80.95	19.05	—
The establishment,		45.45	49.74	4.81
Stoves and ranges,	one hundred pounds	50.00	50.00	—
The establishment,		64.61	27.90	7.49
Stoves and ranges,	five thousand, two hundred and fifty	51.71	44.85	3.44
The establishment,		51.71	44.85	3.44
Stoves, parlor	one	33.33	66.67	—
The establishment,		56.33	42.51	1.16

CORDAGE AND TWINE.

Cordage,	one thousand pounds	14.29	85.71	—
The establishment,		9.78	82.34	7.88
Cordage, manila	one pound	8.74	91.26	—
The establishment,		8.08	87.79	4.13
Cord and lines, sash	one thousand pounds	13.43	78.70	7.87
The establishment,		26.12	72.22	1.66
Cord, window	one pound	24.29	58.93	16.78
The establishment,		20.80	66.65	12.55
Lines,	twenty-five thousand pounds	25.80	49.44	24.76
The establishment,		28.84	55.67	15.49
Lines and nets,	seven hundred yards	53.33	46.67	—
The establishment,		51.55	48.12	0.33
Rope, manila	one thousand pounds	9.46	85.15	5.39
The establishment,		14.45	78.47	7.08
Rope, manila	twenty thousand pounds	12.12	85.86	2.02
The establishment,		12.70	78.24	9.06
Twine,	one hundred pounds	23.08	76.92	—
The establishment,		36.32	40.84	22.84
Twine, binder	one pound	7.69	92.31	—
The establishment,		8.14	82.56	9.30
Twine, linen	ten pounds	22.73	68.18	9.09
The establishment,		34.87	63.62	1.51

COTTON GOODS.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Blankets, cotton	ten cases	20.88	52.94	26.18
The establishment,		27.60	63.58	8.82
Cloth, cotton	one pound	23.06	76.94	—
The establishment,		25.81	71.94	2.25
Cloth, cotton	one pound	56.29	43.71	—
The establishment,		36.84	50.72	12.44
Cloth, cotton	one hundred thousand yards	17.97	68.20	13.83
The establishment,		21.47	74.87	3.66
Cloth, cotton	one pound	24.46	63.34	12.20
The establishment,		28.69	65.63	5.68
Cloth, cotton	one pound	30.00	58.00	12.00
The establishment,		32.12	59.55	8.33
Cloth, cotton	one hundred and seventy-six thousand, four hundred and fifty pounds	28.07	71.93	—
The establishment,		28.55	59.04	12.41
Cloth, cotton	eight hundred and fifty-two thousand, four hundred and ninety-two pounds	31.65	54.36	13.99
The establishment,		33.72	60.49	5.79
Cloth, unbleached	five thousand pounds	34.61	53.84	11.55
The establishment,		27.89	61.37	10.74
Cotton, fancy	one pound	39.97	60.03	—
The establishment,		44.81	49.62	5.57
Cotton goods,	one thousand yards	34.67	44.00	21.33
The establishment,		33.27	61.47	5.26
Cotton goods,	one thousand yards	22.89	51.81	25.30
The establishment,		35.42	61.42	3.16
Cotton goods,	one yard	31.04	51.72	17.24
The establishment,		33.04	53.05	13.91
Cotton goods, colored	one pound	36.42	63.58	—
The establishment,		35.12	60.24	4.64
Denim, blue	one hundred yards	25.58	60.51	13.91
The establishment,		29.78	65.42	4.80
Dress goods, cotton	one yard	41.67	50.00	8.33
The establishment,		31.83	53.34	14.83
Duck, belting	seven thousand, nine hundred and eighty yards	19.36	69.41	11.23
The establishment,		21.32	76.88	1.80
Duck, cotton	one thousand yards	21.05	73.69	5.26
The establishment,		24.55	69.74	5.71
Duck, cotton	one thousand pounds	25.21	74.79	—
The establishment,		23.12	71.99	4.89
Flannel and sheeting, cotton	one million, nine hundred and thirty-one thousand, two hundred and seven pounds	18.46	59.72	21.82
The establishment,		27.53	64.33	8.14
Gingham,	one yard	28.57	71.43	—
The establishment,		37.46	58.89	3.65
Gingham,	one pound	42.82	50.12	7.06
The establishment,		44.09	45.16	10.75
Gingham, fancy	one hundred yards	38.56	43.96	17.48
The establishment,		42.23	54.31	3.46
Jean, cotton	ten thousand yards	31.45	53.14	15.41
The establishment,		31.69	65.22	3.09
Lace, bed	five thousand gross yards	26.32	68.42	5.26
The establishment,		44.03	49.38	6.59
Nainsook,	one hundred yards	40.91	45.45	13.64
The establishment,		44.49	48.43	7.08
Print cloth,	ten thousand pounds	31.16	68.84	—
The establishment,		32.47	62.70	4.83

COTTON GOODS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Print cloth,	one thousand pounds	39.89	60.11	—
The establishment,		28.70	66.90	4.40
Print cloth,	one yard	28.79	58.22	12.99
The establishment,		28.72	61.03	10.25
Print cloth,	one yard	29.09	54.55	16.36
The establishment,		26.95	67.03	6.02
Print cloth,	one yard	20.00	40.00	40.00
The establishment,		32.77	62.29	4.94
Print cloth,	one yard	32.26	65.57	2.17
The establishment,		63.17	34.28	2.55
Print cloth,	one thousand yards	29.44	60.80	9.76
The establishment,		27.27	65.10	7.63
Print cloth,	one hundred thousand yards	30.75	62.22	7.03
The establishment,		29.32	63.41	7.27
Print cloth,	one pound	31.14	45.82	23.04
The establishment,		30.30	64.79	4.91
Print cloth,	one pound	30.01	69.99	—
The establishment,		27.34	70.94	1.72
Print cloth,	one pound	32.24	67.76	—
The establishment,		30.75	62.42	6.83
Print cloth,	one pound	28.87	71.13	—
The establishment,		25.34	72.50	1.66
Print cloth,	one pound	28.57	61.91	9.52
The establishment,		29.96	61.96	8.08
Print cloth,	one pound	31.94	48.39	19.67
The establishment,		31.35	61.66	6.99
Print cloth,	one thousand pounds	27.11	67.56	5.33
The establishment,		26.69	65.24	8.07
Print cloth,	one thousand pounds	28.86	56.45	14.69
The establishment,		28.59	65.55	5.86
Print cloth,	forty-five thousand pounds	28.57	71.43	—
The establishment,		27.27	67.12	5.61
Print cloth,	one hundred thousand pounds	28.67	57.03	14.30
The establishment,		28.77	69.14	2.09
Print cloth,	four hundred and forty-six thousand, five hundred and fifteen pounds	30.99	56.12	12.89
The establishment,		26.71	68.59	4.70
Print cloth,	three million, six hundred and twenty-six thousand, two hundred and seventy- four pounds	30.39	58.08	11.53
The establishment,		21.45	67.43	11.12
Print cloth,	one yard	30.94	59.06	10.00
The establishment,		29.91	59.34	10.75
Print cloth,	one yard	29.56	57.55	12.89
The establishment,		31.57	63.67	4.76
Print cloth,	one hundred pounds	27.11	60.00	12.89
The establishment,		27.15	66.48	6.37
Print cloth,	one hundred thousand pounds	28.23	71.77	—
The establishment,		26.92	67.60	5.48
Scrim, cotton	fifty pieces	26.47	73.53	—
The establishment,		27.13	67.21	5.61
Sheeting,	three hundred thousand pounds	19.54	45.91	34.55
The establishment,		26.87	66.59	6.54
Sheeting,	ten thousand pounds	32.00	61.04	6.96
The establishment,		35.11	60.87	4.02
Sheeting,	ten thousand pounds	33.61	63.67	2.72
The establishment,		34.42	61.94	3.64

COTTON GOODS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Sheeting,	ten thousand pounds . . .	30.77	59.54	9.69
The establishment,		33.70	63.15	3.15
Sheeting,	ten thousand pounds . . .	28.54	53.90	17.56
The establishment,		32.97	63.90	3.13
Sheeting,	five million, eight hundred and sixty-one thousand, two hundred and ninety- six pounds	18.89	61.89	19.22
The establishment,		22.43	64.87	12.70
Shirting,	three hundred and forty thousand pounds . . .	34.74	48.42	16.84
The establishment,		32.99	60.82	6.19
Shirting, cotton	one pound	33.33	66.67	—
The establishment,		33.63	62.38	3.99
Stockinet,	one pound	16.67	77.78	5.55
The establishment,		14.90	80.07	5.03
Tapes and webbing,	fifty-one thousand, nine hun- dred and three gross . . .	28.73	71.27	—
The establishment,		26.20	65.01	8.79
Thread and yarn,	one pound	43.65	53.79	2.56
The establishment,		40.20	52.26	7.54
Ticking,	one pound	23.64	51.66	24.70
The establishment,		36.44	57.36	6.20
Ticking,	one hundred pounds . . .	28.06	57.91	14.03
The establishment,		26.96	54.64	18.40
Twine and warp,	one hundred pounds . . .	11.00	89.00	—
The establishment,		18.72	77.86	3.42
Warp, cotton	one yard	24.56	66.67	8.77
The establishment,		25.29	72.33	2.38
Warp, cotton	two hundred and twenty-six thousand, eight hundred yards	33.03	66.97	—
The establishment,		23.66	47.99	29.35
Warp, cotton	one pound	21.25	78.75	—
The establishment,		19.82	74.33	5.85
Warp, cotton	one hundred pounds . . .	22.73	59.09	18.18
The establishment,		22.68	71.16	6.16
Warp, cotton	three hundred and eighty- five thousand, seven hun- dred and sixty-seven pounds	23.32	61.47	15.21
The establishment,		26.42	69.64	3.94
Warp, satinnet	one thousand yards . . .	20.00	80.00	—
The establishment,		24.80	71.91	3.29
Yarn,	one pound	30.77	57.69	11.54
The establishment,		23.75	69.54	6.71
Yarn,	one pound	16.22	75.67	8.11
The establishment,		19.02	72.39	8.59
Yarn, cotton	one hundred pounds . . .	19.45	76.72	3.83
The establishment,		17.96	77.83	4.21
Yarn, cotton	one hundred pounds . . .	26.83	73.17	—
The establishment,		25.84	70.58	3.58
Yarn, cotton	one hundred pounds . . .	17.33	82.67	—
The establishment,		11.19	83.08	5.73
Yarn, cotton	one thousand pounds . . .	31.15	45.90	22.95
The establishment,		25.25	62.53	11.92
Yarn and thread,	one pound	20.13	63.35	16.52
The establishment,		21.61	71.85	6.54

COTTON, WOOLLEN, AND OTHER TEXTILES.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Cassimeres, fancy	six hundred and seventy-five thousand, seven hundred and fifty-three yards . .	31.90	68.10	-
The establishment,		32.64	65.42	1.94

CRAYONS, PENCILS, CRUCIBLES, ETC.

Crayons, school	five hundred thousand . .	50.00	20.00	30.00
The establishment,		61.69	30.85	7.46
Whitewash blocks,	one thousand	64.29	35.71	-
The establishment,		53.50	44.73	1.77

DRUGS AND MEDICINES.

Asthma remedy,	one gross bottles	6.67	93.33	-
The establishment,		10.67	61.50	27.83
Beer, root	twenty gallons	3.33	96.67	-
The establishment,		-	50.10	49.90
Blood purifier,	one gross bottles	15.31	36.73	47.96
The establishment,		16.35	73.80	9.85
Dover's powder,	ten pounds	21.13	78.87	-
The establishment,		-	100.00	-
Emulsion,	one gross bottles	22.22	77.78	-
The establishment,		30.28	62.10	7.62
Essences,	one dozen bottles	20.00	80.00	-
The establishment,		-	76.44	23.56
Liniment,	four thousand bottles . .	62.50	37.50	-
The establishment,		25.09	72.90	2.01
Lotion, glycerine	one dozen bottles	16.67	83.33	-
The establishment,		-	100.00	-
Patent medicines,	one gross bottles	65.00	13.50	21.50
The establishment,		-	98.59	1.41
Patent medicines,	four hundred and thirty bot- tles	86.49	13.51	-
The establishment,		86.49	13.51	-
Roots and herbs,	one ton	16.67	83.33	-
The establishment,		16.34	81.70	1.96
Salve,	one gross boxes	11.75	41.67	46.58
The establishment,		16.52	58.99	24.49

DYESTUFFS.

Acid, sulphuric	one ton	14.67	53.11	32.22
The establishment,		19.19	66.48	14.33
Blue, laundry	twenty-four thousand and ninety-two gross	13.09	15.65	71.26
The establishment,		21.86	59.06	19.08

EARTHEN, PLASTER, AND STONE WARE.

Earthenware,	one kiln	65.00	25.00	10.00
The establishment,		63.06	28.42	5.92
Flower pots,	one thousand	87.50	12.50	-
The establishment,		57.85	25.92	16.23

EARTHEN, PLASTER, AND STONE WARE—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Flower pots,	one million	21.33	11.87	66.80
The establishment,		57.55	32.02	10.43
Gallon jugs,	one dozen	50.00	12.00	38.00
The establishment,		44.82	35.63	19.55
Terra cotta,	fourteen hundred tons	73.73	26.27	—
The establishment,		68.39	24.36	7.25

ELECTRICAL APPARATUS AND APPLIANCES.

Bells, electric	one hundred	67.35	32.65	—
The establishment,		46.94	48.96	4.10
Telephones and transmitters, . . .	one thousand pairs	21.98	58.05	19.97
The establishment,		45.44	42.41	12.15

ELECTROPLATING.

Forks,	one dozen	35.72	53.57	10.71
The establishment,		27.50	21.83	50.67

EMERY AND SAND PAPER AND CLOTH, ETC.

Corundum,	one ton	20.00	38.10	41.90
The establishment,		25.73	73.00	1.27
Emery,	one ton	20.83	79.17	—
The establishment,		17.85	64.44	17.71
Emery and corundum wheels, . . .	sixty-four	47.68	20.53	31.79
The establishment,		36.60	32.28	31.12
Grinders, tool	one	60.00	40.00	—
The establishment,		35.43	41.43	23.14

FANCY ARTICLES.

Razor strops,	one gross	50.00	25.00	25.00
The establishment,		56.65	26.33	17.02

FERTILIZERS.

Fertilizers,	one ton	20.00	80.00	—
The establishment,		16.65	80.47	2.88
Fertilizers,	ninety tons	15.00	70.00	15.00
The establishment,		17.00	81.58	1.42
Guano,	one ton	8.80	81.50	10.20
The establishment,		7.65	87.15	5.20
Phosphate,	one ton	14.29	85.71	—
The establishment,		12.53	86.88	0.59

FLAX, HEMP, AND JUTE GOODS.

Bagging,	one yard	24.10	75.90	—
The establishment,		21.58	72.39	6.03
Bagging,	one yard	24.10	75.90	—
The establishment,		22.11	69.85	8.04
Cloth, gunny	one hundred yards	14.71	61.76	23.53
The establishment,		23.44	69.76	6.80

FOOD PREPARATIONS.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Bread,	one loaf	42.86	57.14	—
The establishment,		40.78	52.29	6.93
Bread,	one loaf	12.50	87.50	—
The establishment,		13.10	86.90	—
Bread,	one loaf	25.00	75.00	—
The establishment,		19.22	68.71	12.07
Bread,	one hundred loaves	50.00	50.00	—
The establishment,		27.66	71.28	1.06
Bread,	one hundred and fifteen loaves	26.14	73.86	—
The establishment,		27.40	68.49	4.11
Bread,	one hundred and fifty loaves	16.67	66.66	16.67
The establishment,		31.61	68.39	—
Bread,	two hundred loaves	14.81	48.15	37.04
The establishment,		23.48	66.97	9.55
Bread,	four hundred loaves	25.00	75.00	—
The establishment,		23.95	58.11	12.94
Bread,	fifty-two thousand loaves	15.45	84.55	—
The establishment,		12.63	68.57	18.80
Bread,	one hundred and twenty thousand loaves	16.86	83.14	—
The establishment,		15.56	81.14	3.30
Bread,	three hundred pounds	41.67	58.33	—
The establishment,		30.77	69.23	—
Bread,	three hundred pounds	34.68	65.32	—
The establishment,		23.82	66.91	9.27
Bread, white	twelve hundred loaves	23.85	64.10	7.05
The establishment,		31.05	67.69	1.26
Bread and cookies,	eighty-six thousand, four hundred cookies; sixty- two thousand, four hun- dred loaves	15.93	84.07	—
The establishment,		15.93	84.07	—
Bread, cake, and crackers,	sixty tons	16.65	83.35	—
The establishment,		16.52	82.71	0.77
Butter,	one pound	10.00	10.00	80.00
The establishment,		10.00	10.00	80.00
Butter,	two thousand pounds	10.00	90.00	—
The establishment,		8.61	90.42	0.97
Candy,	one pound	30.00	70.00	—
The establishment,		—	100.00	—
Candy,	one hundred pounds	21.05	78.95	—
The establishment,		13.25	81.43	5.32
Candy,	one hundred pounds	22.22	77.78	—
The establishment,		12.28	80.83	6.89
Candy,	four thousand pounds	31.25	68.75	—
The establishment,		29.13	70.87	—
Candy, broken	one thousand pounds	8.50	87.50	4.00
The establishment,		12.45	78.82	8.73
Candy, common	one pound	18.75	81.25	—
The establishment,		18.61	66.16	15.23
Candy, molasses	ten pounds	31.25	68.75	—
The establishment,		27.50	52.86	19.64
Canned goods,	two hundred dozen	14.06	72.92	13.02
The establishment,		22.79	73.19	4.02
Caramels,	seventy-two thousand pounds	17.85	82.15	—
The establishment,		21.43	66.41	12.16
Cheese,	one hundred pounds	50.00	50.00	—
The establishment,		67.03	32.97	—
Chocolate,	one hundred pounds	14.15	52.08	33.77
The establishment,		31.25	57.92	10.83

FOOD PREPARATIONS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Cod, boneless	one pound	6.11	93.89	—
The establishment,		6.00	94.00	—
Cod, boneless	one hundred pounds	8.33	91.67	—
The establishment,		12.62	84.21	3.17
Cod, boneless	one thousand pounds	7.22	85.56	7.22
The establishment,		13.34	85.66	1.00
Cod, boneless	one thousand pounds	7.22	85.56	7.22
The establishment,		6.91	91.51	1.58
Cod, boneless	eighty-nine thousand, six hundred pounds	20.00	80.00	—
The establishment,		30.82	65.11	4.07
Cod, boneless	two hundred thousand pounds	4.76	95.24	—
The establishment,		4.76	95.24	—
Cod, boneless	one million, five hundred and seventy-five thousand pounds	9.82	66.14	24.04
The establishment,		12.92	87.08	—
Coffee, ground and roasted	one hundred pounds	8.70	91.30	—
The establishment,		3.68	93.72	2.60
Confectionery,	one hundred pounds	17.65	82.35	—
The establishment,		31.25	68.75	—
Cough drops,	forty-nine thousand, one hun- dred and fifty pounds	18.89	81.11	—
The establishment,		16.13	69.32	14.55
Crackers,	twenty barrels	16.87	83.13	—
The establishment,		29.27	64.05	6.68
Crackers,	two thousand pounds	19.11	70.06	10.83
The establishment,		19.57	72.75	7.68
Crackers,	one barrel	0.30	2.10	97.60
The establishment,		10.64	89.36	—
Crackers,	one barrel	14.29	85.71	—
The establishment,		14.17	83.84	1.99
Crackers,	one barrel	17.71	82.29	—
The establishment,		21.15	74.45	4.40
Crackers,	twelve thousand, three hun- dred and thirteen barrels	13.65	82.40	3.95
The establishment,		21.67	77.80	0.53
Crackers, water	one hundred pounds	38.46	61.54	—
The establishment,		53.13	40.47	6.40
Essences,	one gross bottles	8.33	91.67	—
The establishment,		35.18	62.26	2.56
Extracts, flavoring	one gross bottles	8.33	91.67	—
The establishment,		12.07	81.89	6.04
Feed and meal,	one ton	2.17	91.31	6.52
The establishment,		11.84	87.15	1.01
Flour,	one barrel	4.76	95.24	—
The establishment,		3.35	95.07	1.58
Grinding grain,	one bushel	66.67	33.33	—
The establishment,		—	3.65	96.35
Gum, chewing	one box	34.78	56.52	8.70
The establishment,		28.28	71.72	—
Hog products,	one hundred pounds	1.71	98.29	—
The establishment,		4.34	94.81	0.85
Ice,	one ton	66.67	33.33	—
The establishment,		82.75	6.72	10.53
Ice cream,	one quart	15.00	85.00	—
The establishment,		—	65.79	34.21
Ice cream,	one gallon	25.00	75.00	—
The establishment,		19.61	78.43	1.96

FOOD PREPARATIONS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Ice cream,	one gallon	8.33	83.34	8.33
The establishment,		33.03	49.37	17.60
Meal,	one hundred pounds	1.74	95.65	2.61
The establishment,		3.60	93.83	2.57
Meal,	ten bags	1.80	92.43	5.77
The establishment,		22.77	66.53	10.70
Meal,	one bushel	2.14	85.72	12.14
The establishment,		5.03	93.79	1.18
Meal,	one bushel	7.41	92.59	—
The establishment,		17.31	83.76	1.93
Meal,	one bushel	3.57	96.43	—
The establishment,		3.51	93.79	2.70
Meal, corn	one hundred bags	5.77	94.23	—
The establishment,		5.65	92.74	1.61
Meal, corn	one bushel	17.24	82.76	—
The establishment,		6.85	92.41	0.74
Meal, corn	one ton	9.83	90.17	—
The establishment,		14.94	81.66	3.40
Meal, corn	one ton	2.38	95.21	2.38
The establishment,		9.30	89.77	0.93
Meal, ground	one hundred pounds	2.86	95.24	1.90
The establishment,		5.35	93.25	1.40
Peppermint drops,	one ton	15.00	75.00	10.00
The establishment,		23.13	75.27	1.60
Pickles,	ten barrels	15.38	84.62	—
The establishment,		8.28	87.15	4.57
Sausages,	one hundred pounds	11.11	88.89	—
The establishment,		20.15	77.08	2.77
Tomatoes, canned	one dozen	11.01	88.99	—
The establishment,		35.03	62.39	2.58
Tomatoes, canned	one thousand dozen	80.00	20.00	—
The establishment,		26.14	69.82	4.04
Vinegar,	one barrel	50.00	50.00	—
The establishment,		27.63	65.23	7.14
Vinegar, cider	six hundred barrels	14.29	57.14	28.57
The establishment,		28.30	56.60	15.10
Yeast, compressed	one hundred pounds	24.00	76.00	—
The establishment,		22.42	77.58	—

FURNITURE.

Beds, cabinet	one	47.14	52.86	—
The establishment,		53.93	38.05	8.02
Beds, spring	one	16.67	83.33	—
The establishment,		33.33	66.67	—
Beds, spring	one	16.67	83.33	—
The establishment,		25.99	67.06	6.95
Beds, spring	one hundred	26.09	73.91	—
The establishment,		27.19	66.74	6.07
Beds, spring	one hundred	18.75	81.25	—
The establishment,		29.54	65.44	5.02
Bent stock (for chairs),	eighty thousand, eight hun- dred and twenty-three bows	57.08	42.92	—
The establishment,		48.81	39.01	12.18
Blinds,	fifteen hundred pairs	37.50	62.50	—
The establishment,		40.35	48.21	11.44
Bureaus,	one hundred	33.33	61.34	5.33
The establishment,		66.23	33.77	—

FURNITURE — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Burial caskets,	one	20.89	68.66	10.45
The establishment,		37.19	31.79	31.02
Chairs,	one	26.67	73.33	—
The establishment,		26.26	72.17	1.57
Chairs,	one	67.69	32.31	—
The establishment,		44.86	49.81	5.33
Chairs,	twenty-four hundred and forty-eight	58.56	41.44	—
The establishment,		58.56	41.44	—
Chairs,	eighty thousand	18.75	41.67	39.58
The establishment,		30.30	68.35	1.35
Chairs,	one dozen	40.00	45.00	15.00
The establishment,		38.15	61.85	—
Chairs,	one hundred dozen	36.71	58.23	5.06
The establishment,		30.98	49.78	19.24
Chairs,	ten dozen	58.33	41.67	—
The establishment,		54.66	37.22	8.12
Chairs, cane-seat	one hundred dozen	38.68	61.32	—
The establishment,		26.36	65.86	7.78
Chairs, cane-seat	one hundred dozen	33.33	41.69	24.98
The establishment,		41.44	49.34	9.22
Chairs, Grecian	one hundred dozen	31.90	57.86	10.24
The establishment,		41.36	52.76	5.88
Chairs, rocking	one hundred	35.87	64.13	—
The establishment,		43.90	54.08	2.02
Desks,	one	41.67	58.33	—
The establishment,		42.36	50.06	7.58
Desks, parlor	one	40.00	60.00	—
The establishment,		46.89	32.86	20.25
Desks and seats, school	one	45.45	54.55	—
The establishment,		46.17	50.78	3.05
Earth closets,	ninety	41.67	33.33	25.00
The establishment,		49.53	44.15	6.32
Frames, parlor furniture	one suit	45.06	28.53	26.41
The establishment,		55.90	29.05	15.05
Furniture, chamber	one suit	44.44	55.56	—
The establishment,		56.54	34.23	9.23
Furniture, chamber	one suit	58.82	41.18	—
The establishment,		61.77	34.78	0.45
Furniture, chamber	one suit	20.20	79.80	—
The establishment,		19.16	75.66	5.18
Furniture, chamber	one suit	50.00	50.00	—
The establishment,		31.29	40.23	28.48
Furniture, chamber	one suit	11.55	55.56	32.89
The establishment,		42.12	41.47	16.41
Furniture, chamber	three hundred suits	33.33	20.00	46.67
The establishment,		52.53	42.70	4.77
Furniture, chamber (pine, painted)	one suit	16.79	83.21	—
The establishment,		17.95	79.67	2.38
Furniture, parlor	one suit	71.96	28.04	—
The establishment,		46.62	34.97	18.41
Furniture, parlor	one suit	15.48	69.19	15.33
The establishment,		38.60	41.98	19.42
Furniture, parlor	one suit	21.17	60.00	18.83
The establishment,		30.49	62.55	6.96
Furniture, parlor	one suit	30.00	70.00	—
The establishment,		27.57	72.43	—
Furniture, parlor	one suit	15.48	69.19	15.33
The establishment,		38.60	41.98	19.42

FURNITURE — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Mantels, wood	forty	60.00	40.00	—
The establishment,		38.78	51.33	9.89
Mattresses,	one	20.00	68.50	11.50
The establishment,		12.95	74.72	12.33
Mattresses, hair	one	4.09	95.91	—
The establishment,		43.93	36.86	19.21
Mattresses, spring	one hundred and eighty	37.78	59.44	2.78
The establishment,		34.96	55.14	9.90
Mattresses, wire	one	27.81	72.19	—
The establishment,		35.18	49.02	15.80
Mattresses, woven-wire	one dozen	23.33	76.67	—
The establishment,		29.18	57.76	13.06
Refrigerators,	one	13.64	86.36	—
The establishment,		69.72	19.89	10.39
Refrigerators,	one	28.57	71.43	—
The establishment,		49.10	46.64	4.26
Refrigerators,	one	58.82	41.18	—
The establishment,		18.39	78.34	3.27
Secretaries,	one	60.00	40.00	—
The establishment,		40.03	46.04	13.93
Slides, drawer	one set	75.00	25.00	—
The establishment,		61.22	20.41	18.37
Springs, furniture	one gross	15.39	76.92	7.69
The establishment,		20.65	48.08	31.27
Tables,	one	76.00	24.00	—
The establishment,		68.51	25.26	6.23
Tables, extension	one	38.10	61.90	—
The establishment,		49.65	44.65	5.70
Towel racks,	six hundred	33.34	33.33	33.33
The establishment,		26.58	60.93	12.49
Towel racks,	ten dozen	66.67	33.33	—
The establishment,		59.30	35.78	4.92

GLASS.

Homeopathic vials,	one hundred gross	32.84	67.16	—
The establishment,		61.76	38.17	0.07

GLUE, ISINGLASS, AND STARCH.

Glue,	one pound	21.43	78.57	—
The establishment,		21.54	74.38	4.08
Glue,	one pound	18.18	81.82	—
The establishment,		18.18	81.82	—
Glue,	one ton	23.08	76.92	—
The establishment,		17.71	81.34	0.95
Glue,	one hundred and fifty tons	10.41	86.80	2.79
The establishment,		10.41	86.80	2.79
Isinglass,	one pound	6.58	78.95	14.47
The establishment,		7.00	92.75	0.25
Isinglass, ribbon	one pound	11.76	88.24	—
The establishment,		11.94	85.85	2.21
Starch,	one barrel	18.55	81.45	—
The establishment,		18.32	80.43	1.25

HAIR WORK (ANIMAL AND HUMAN).

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Hair, curled	one thousand pounds . . .	12.07	87.93	—
The establishment,		11.96	85.61	2.43
Wigs,	one	50.00	33.33	16.67
The establishment,		61.26	11.48	27.26

HOSIERY AND KNIT GOODS.

Cardigan jackets,	one dozen	20.69	58.62	20.69
The establishment,		22.92	75.80	1.28
Cloths, knitted	two hundred yards . . .	40.00	60.00	—
The establishment,		19.82	79.39	0.79
Hose, half	one dozen pairs	37.50	62.50	—
The establishment,		33.86	57.74	8.40
Hosiery,	one dozen pairs	44.44	55.56	—
The establishment,		34.54	42.40	23.06
Hosiery,	one dozen pairs	58.33	25.00	16.67
The establishment,		63.66	26.92	9.42
Hosiery,	one dozen pairs	37.50	50.00	12.50
The establishment,		44.35	45.99	9.66
Hosiery,	one dozen pairs	33.33	66.67	—
The establishment,		14.97	50.74	34.29
Hosiery, children's	one hundred dozen pairs .	48.48	51.52	—
The establishment,		46.50	47.98	5.52
Hosiery, cotton (plain)	one hundred thousand dozen pairs	33.18	41.09	25.73
The establishment,		38.63	46.79	14.58
Jersey cloth,	seven hundred and seventy- eight yards	10.91	83.79	5.30
The establishment,		8.79	89.36	1.85
Shirts, infants'	one hundred dozen	42.86	57.14	—
The establishment,		40.18	49.55	10.27
Stockings,	one dozen pairs	28.92	40.96	30.12
The establishment,		38.77	55.42	5.81
Stockings, cotton (white) . . .	one thousand dozen pairs .	53.27	34.00	12.73
The establishment,		34.60	53.67	11.73
Underwear, gauze	forty dozen	29.00	71.00	—
The establishment,		38.02	58.77	3.21
Underwear, knit	four hundred dozen	23.90	60.10	16.00
The establishment,		17.48	81.26	1.26

INK, MUCILAGE, AND PASTE.

Flour paste,	one barrel	10.71	89.29	—
The establishment,		24.56	67.35	8.09

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

Buttons, rubber	one thousand gross	66.67	33.33	—
The establishment,		58.64	34.26	7.10
Buttons, suspender	one thousand great gross .	44.44	55.56	—
The establishment,		31.59	59.18	9.23
Combs,	one gross	75.00	25.00	—
The establishment,		66.12	28.10	5.78
Combs,	ten gross	55.56	33.33	11.11
The establishment,		51.45	42.59	5.96

IVORY, BONE, SHELL, AND HORN GOODS, ETC. — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Combs,	twelve hundred gross	34.94	59.40	5.66
The establishment,		35.41	58.22	6.37
Combs, fancy	ten gross	50.00	50.00	—
The establishment,		66.99	29.82	3.19
Combs,	one dozen	30.00	70.00	—
The establishment,		15.50	82.59	1.91
Hair ornaments,	one hundred gross	66.67	33.33	—
The establishment,		69.12	22.24	8.64
Plastic compound,	one pound	40.00	60.00	—
The establishment,		31.13	54.69	14.13

LEATHER.

Bags, feed	five thousand	21.91	78.00	—
The establishment,		16.92	60.28	22.80
Belting,	one hundred feet	24.79	75.21	—
The establishment,		8.46	91.54	—
Belting, leather	one hundred pounds	33.87	66.13	—
The establishment,		10.44	82.00	7.56
Grinding bark,	one cord	11.74	88.26	—
The establishment,		63.11	29.04	7.85
Hames,	one pair	25.00	50.00	25.00
The establishment,		82.08	12.26	5.66
Harnesses,	one	50.00	50.00	—
The establishment,		32.03	54.87	13.03
Harnesses,	one	42.86	57.14	—
The establishment,		31.16	68.12	0.72
Harnesses,	one	28.57	71.43	—
The establishment,		—	100.00	—
Harnesses,	one	25.00	75.00	—
The establishment,		34.01	64.56	1.43
Harnesses,	one	31.82	68.18	—
The establishment,		3.26	96.74	—
Harnesses,	one	40.00	60.00	—
The establishment,		33.50	50.51	15.99
Harnesses,	one	50.00	50.00	—
The establishment,		64.35	33.59	2.06
Harnesses,	one	30.00	67.50	2.50
The establishment,		22.73	50.00	27.27
Harnesses,	one	66.67	33.33	—
The establishment,		36.20	49.85	13.95
Harnesses,	one	24.00	76.00	—
The establishment,		25.44	69.70	4.86
Harnesses,	one	33.33	66.67	—
The establishment,		37.45	33.81	28.74
Harnesses,	one	31.92	53.19	14.89
The establishment,		30.97	61.13	7.90
Harnesses,	five	43.48	34.78	21.74
The establishment,		25.95	51.90	22.15
Harnesses,	ten	32.50	37.50	30.00
The establishment,		24.53	75.47	—
Harnesses,	fifteen	50.00	50.00	—
The establishment,		28.57	71.43	—
Harnesses,	forty	31.25	68.75	—
The establishment,		45.09	53.29	1.62
Harnesses,	fifty	46.67	33.33	20.00
The establishment,		37.04	55.55	7.41

LEATHER — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Harnesses, light (nickel-plated)	one	26.67	66.67	6.66
The establishment,		21.87	77.84	0.29
Horse collars,	one dozen	26.09	73.91	—
The establishment,		21.61	64.32	14.07
Horse collars,	one dozen	40.03	40.00	20.00
The establishment,		56.00	34.76	9.24
Horse collars,	three hundred and fifty dozen	33.52	59.26	7.22
The establishment,		50.89	49.11	—
Inner soles, canvas	one thousand sheets	5.26	94.74	—
The establishment,		20.07	75.83	4.10
Leather,	one million, two hundred thousand feet	8.88	91.12	—
The establishment,		7.97	81.76	10.27
Leather,	five hundred and sixty thou- sand pounds	10.27	87.79	1.94
The establishment,		10.05	85.94	4.01
Leather,	one ton	6.98	9.30	83.72
The establishment,		8.90	91.10	—
Leather,	one hundred sides	68.96	22.99	8.05
The establishment,		6.65	93.28	0.07
Leather,	one hundred sides	7.30	92.70	—
The establishment,		15.68	83.84	0.48
Leather,	one hundred sides	37.50	62.50	—
The establishment,		20.54	78.32	1.14
Leather,	twenty-five thousand sides	12.41	87.59	—
The establishment,		12.33	87.06	0.61
Leather, buff	one side	20.00	80.00	—
The establishment,		16.58	81.22	2.20
Leather, calfskin	one pound	7.94	11.11	80.95
The establishment,		16.20	83.36	0.44
Leather, calfskin	sixty-three thousand, one hun- dred and two pounds	13.63	86.37	—
The establishment,		13.56	85.93	0.51
Leather, calfskin (glove)	one dozen	17.86	77.38	4.76
The establishment,		41.33	55.24	3.43
Leather, card	two sides	10.98	89.02	—
The establishment,		8.32	84.75	6.93
Leather, goat and sheepskin	ten thousand dozen	20.90	79.10	—
The establishment,		20.05	77.49	2.46
Leather, grain	two thousand, two hundred and fifty feet	13.76	83.00	3.24
The establishment,		9.03	89.18	1.79
Leather, grain	twelve hundred sides	16.00	84.00	—
The establishment,		12.14	87.35	0.51
Leather, grain (glove)	one thousand feet	17.39	82.61	—
The establishment,		11.38	87.07	1.55
Leather, grain (Polish)	one side	14.29	2.33	83.33
The establishment,		8.55	90.22	1.23
Leather, kid (hand-gloved)	one dozen	27.71	72.29	—
The establishment,		23.59	74.97	1.44
Leather, kip	one hundred feet	30.51	69.49	—
The establishment,		11.95	86.94	1.11
Leather, kip	one hundred feet	28.57	71.43	—
The establishment,		13.81	83.11	3.08
Leather, morocco	one dozen	26.47	73.53	—
The establishment,		42.18	52.07	5.75
Leather, morocco	one dozen	22.33	77.67	—
The establishment,		20.87	78.18	0.95

LEATHER — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Leather, patent	one side	16.98	83.02	—
The establishment,		6.55	93.19	0.26
Leather, russet	one side	15.02	84.98	—
The establishment,		18.58	66.95	14.47
Leather, sheepskin	one dozen	24.00	6.00	70.00
The establishment,		22.28	77.72	—
Leather, sheepskin	one dozen	17.65	82.35	—
The establishment,		12.73	84.85	2.42
Leather, sheepskin	one dozen	27.00	70.00	3.00
The establishment,		29.18	67.86	2.96
Leather, split	one pound	16.19	83.81	—
The establishment,		15.24	82.86	1.90
Leather, split	one pound	20.15	79.59	0.26
The establishment,		15.16	83.04	1.80
Leather, split	one ton	8.89	91.11	—
The establishment,		8.87	90.86	0.27
Leather, upper	ten thousand sides	11.54	88.46	—
The establishment,		11.49	88.07	0.44
Leather, wax	one foot	23.53	76.47	—
The establishment,		12.13	86.84	1.03
Leather-board,	one ton	12.50	75.00	12.50
The establishment,		12.42	77.35	10.23
Mats, wool	one	44.44	55.56	—
The establishment,		22.74	75.82	1.44
Roller skins,	one dozen	23.33	10.00	66.67
The establishment,		15.27	81.50	3.23
Saddles, gig	one hundred	35.00	52.50	12.50
The establishment,		19.77	58.53	21.70
Splits, finished	one ton	16.18	83.82	—
The establishment,		16.17	83.83	—
Washers,	two million, seven hundred and fifty thousand	27.90	57.10	15.00
The establishment,		27.42	60.52	12.06

LINEN.

Towelling, crash	one yard	35.00	50.00	15.00
The establishment,		32.71	62.54	4.75

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

Ginger ale,	sixty quarts	34.82	12.44	52.74
The establishment,		19.68	71.03	9.29
Ginger ale,	ten gross bottles	13.33	86.67	—
The establishment,		35.72	11.38	52.90
Soda water,	four dozen bottles	37.50	12.50	50.00
The establishment,		38.13	57.27	4.60
Soda water,	sixty-five dozen bottles	28.57	71.43	—
The establishment,		36.90	63.10	—
Soda water,	ten gallons	66.67	33.33	—
The establishment,		47.85	52.15	—
Soda water,	ten gallons	33.34	33.33	33.33
The establishment,		54.02	41.75	4.23
Tonic beer,	three thousand dozen bottles	25.00	75.00	—
The establishment,		35.49	52.68	11.83

LIQUORS AND BEVERAGES (NOT SPIRITUOUS) — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Tonic beer,	fifteen thousand dozen quarts	37.50	50.00	12.50
The establishment,		49.43	50.57	-
Tonic beer,	one gross bottles	28.57	71.43	-
The establishment,		21.47	44.72	33.81
Tonics,	sixty gallons	23.11	37.00	39.89
The establishment,		61.86	31.96	6.18
Tonics,	one gross bottles	33.33	66.67	-
The establishment,		7.06	70.65	22.29

LIQUORS: MALT, DISTILLED, AND FERMENTED.

Aerated water,	one dozen quarts	15.00	60.00	25.00
The establishment,		26.02	57.56	16.42
Ale,	one barrel	6.54	44.55	48.91
The establishment,		11.24	72.73	16.03
Ale,	one barrel	25.00	75.00	-
The establishment,		14.16	73.95	11.89
Ale and porter,	twenty-four thousand, four hundred and seventy-five barrels	10.58	46.14	43.28
The establishment,		17.38	71.87	10.75
Beer, hop	six hundred bottles	30.00	70.00	-
The establishment,		33.59	57.00	9.41
Beer, lager	one barrel	16.67	37.50	45.83
The establishment,		26.80	63.27	9.93
Beer, lager (bottled)	one hundred and fourteen dozen bottles	1.90	98.10	-
The establishment,		27.74	67.51	4.75
Beer, tonic	ten dozen bottles	4.00	80.00	16.00
The establishment,		7.25	92.35	0.40
Beer, tonic	one gross bottles	13.89	73.61	12.50
The establishment,		13.02	66.29	20.69
Cider,	one gallon	25.00	75.00	-
The establishment,		17.35	73.37	9.28
Cider,	twelve thousand gallons	50.00	50.00	-
The establishment,		33.90	65.68	0.42
Cider,	seventeen thousand and fifty- six gallons	31.82	68.18	-
The establishment,		31.46	67.42	1.12
Cider,	eighteen thousand gallons	30.00	60.00	10.00
The establishment,		32.26	64.52	3.22
Cider,	forty thousand gallons	14.29	71.42	14.29
The establishment,		17.99	74.82	7.19
Cider,	one hundred and five thou- sand gallons	16.67	83.33	-
The establishment,		16.67	83.33	-
Cider,	one barrel	5.10	94.90	-
The establishment,		5.34	94.66	-
Cider,	four thousand barrels	26.67	66.67	6.66
The establishment,		21.43	60.28	18.29
Cider, refined	one thousand gallons	15.00	85.00	-
The establishment,		7.96	91.13	0.91
Cider, sweet	three hundred barrels	20.89	66.67	12.44
The establishment,		23.50	75.00	1.50
Cider and vinegar,	twelve hundred barrels	48.80	51.20	-
The establishment,		48.02	50.38	1.60
Rum,	one thousand gallons	7.33	81.68	10.99
The establishment,		6.23	93.61	0.16

LUMBER.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Boards, box	one thousand feet	37.50	62.50	—
The establishment,		60.98	36.58	2.44
Boards, box	one thousand feet	18.18	72.73	9.09
The establishment,		45.72	52.76	1.52
Boards, box	one thousand feet	13.33	86.67	—
The establishment,		13.33	85.63	1.04
Boards, box	two hundred thousand feet .	15.79	84.21	—
The establishment,		22.28	76.38	1.34
Boards, box	one thousand feet	17.24	82.76	—
The establishment,		22.26	77.05	0.69
Boards, box	one thousand feet	42.86	42.86	14.28
The establishment,		46.87	53.13	—
Boards, box	one thousand feet	14.37	78.13	7.50
The establishment,		18.46	75.61	5.93
Boards, box	one thousand feet	40.00	53.33	6.67
The establishment,		13.59	86.05	0.36
Boards, box	one thousand feet	15.63	68.75	15.62
The establishment,		18.49	78.06	3.45
Boards, box	one thousand feet	14.29	71.43	14.28
The establishment,		16.69	76.52	6.79
Boards, box	one thousand feet	29.41	70.59	—
The establishment,		21.74	69.56	8.70
Boards, box	one thousand feet	23.60	76.40	—
The establishment,		22.67	73.16	4.17
Boards, box	one thousand feet	22.22	77.78	—
The establishment,		45.87	53.67	0.46
Boards, box	one thousand feet	69.57	30.43	—
The establishment,		30.51	69.49	—
Boards, box	four hundred thousand feet .	25.00	75.00	—
The establishment,		23.98	71.94	4.08
Boards, box	one thousand feet	29.41	70.59	—
The establishment,		11.76	88.24	—
Boards, box	seven hundred and fifty thou- sand feet	15.38	80.77	3.85
The establishment,		16.12	76.55	7.33
Boards, pine	one thousand feet	28.57	71.43	—
The establishment,		20.62	75.60	3.78
Boards, pine	one thousand feet	20.00	70.00	10.00
The establishment,		24.51	71.43	4.06
Boards, pine	seventy-five thousand feet .	57.14	42.86	—
The establishment,		11.79	85.03	3.18
Cases,	one thousand feet	26.16	73.84	—
The establishment,		44.71	51.61	3.68
Lumber,	one thousand feet	14.29	85.71	—
The establishment,		25.43	74.57	—
Lumber,	one thousand feet	14.29	85.71	—
The establishment,		16.98	83.02	—
Lumber,	ten thousand feet	80.00	20.00	—
The establishment,		45.41	18.92	35.67
Lumber,	twenty-five thousand feet .	23.48	76.52	—
The establishment,		23.16	62.93	8.91
Lumber,	ten thousand feet	12.50	75.00	12.50
The establishment,		25.14	67.87	6.99
Lumber, pine	one thousand feet	57.14	42.86	—
The establishment,		30.93	63.68	5.39
Lumber, rough	one thousand feet	8.57	91.43	—
The establishment,		18.84	79.28	1.88
Lumber, rough	fifty thousand feet	5.88	52.94	41.18
The establishment,		21.44	72.90	5.66

LUMBER — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Lumber, rough	five hundred thousand feet .	25.53	53.19	21.28
The establishment,		29.63	61.73	8.64
Mouldings,	one thousand feet	26.67	66.67	6.66
The establishment,		22.46	76.54	1.00
Shingles,	six hundred thousand . . .	50.00	50.00	—
The establishment,		39.60	56.11	4.29
Wood, oak	one cord	50.00	50.00	—
The establishment,		46.94	53.06	—
Woods, match	five hundred cases	57.14	42.86	—
The establishment,		57.14	42.86	—

MACHINES AND MACHINERY.

Blowers, pressure	five hundred and twenty .	31.41	68.59	—
The establishment,		60.36	25.78	13.86
Bobbins,	one thousand	18.18	81.82	—
The establishment,		46.45	45.72	7.83
Bobbins, wool-filling	one thousand	36.32	63.68	—
The establishment,		51.44	48.39	0.17
Boilers, steam	one	25.00	75.00	—
The establishment,		27.33	71.94	0.73
Burners, gas	one	36.36	54.55	9.09
The establishment,		59.32	29.66	11.02
Card-clothing,	one square foot	21.25	78.75	—
The establishment,		18.12	78.89	2.99
Card-clothing,	one hundred square feet .	8.01	88.81	3.18
The establishment,		8.04	89.12	2.84
Card-clothing,	twenty one thousand, nine hundred and fifty-four square feet	19.38	68.25	12.37
The establishment,		20.79	72.38	6.83
Channel flap turners,	one	72.60	6.11	21.29
The establishment,		91.75	8.25	—
Clothes wringers,	one hundred	8.00	69.67	22.33
The establishment,		6.85	76.43	16.72
Clothes wringers,	four hundred and sixty-eight dozen	15.54	57.89	26.57
The establishment,		13.84	86.16	—
Combs (for cotton cards),	ten	24.28	32.86	42.86
The establishment,		47.94	20.56	31.50
Cop tubes,	one thousand pounds . . .	25.00	75.00	—
The establishment,		23.07	71.05	5.88
Cotton gins,	one	32.71	42.06	25.23
The establishment,		38.74	33.53	27.73
Covering (for pipes),	one hundred feet	33.33	66.67	—
The establishment,		61.70	25.71	12.59
Cutters, moulding	one hundred	93.33	6.67	—
The establishment,		52.34	11.06	36.60
Cutters, sole leather	one	36.51	63.49	—
The establishment,		55.41	44.59	—
Drills, upright	one	42.86	42.86	14.28
The establishment,		35.70	54.62	9.68
Engines,	one	73.58	26.42	—
The establishment,		45.74	43.21	11.05
Engines, steam	one	40.49	37.79	21.72
The establishment,		42.38	40.20	17.42
Engines, steam	one	22.00	78.00	—
The establishment,		44.00	55.31	0.69

MACHINES AND MACHINERY — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Fastenings, bedstead	one hundred sets	18.18	81.82	—
The establishment,		11.48	79.18	9.34
Freezers,	one	70.00	30.00	—
The establishment,		64.54	24.89	10.57
Gas screens,	one	11.77	82.35	5.88
The establishment,		13.41	83.61	2.98
Gates, water	ten	18.58	81.42	—
The establishment,		24.07	67.87	8.06
Governors,	one	57.14	28.57	14.29
The establishment,		46.45	30.56	22.99
Grinders,	one	55.56	44.44	—
The establishment,		27.21	18.39	54.40
Injectors,	one	24.00	76.00	—
The establishment,		17.54	81.00	1.46
Knives, lawn mower	one thousand	66.67	28.57	4.76
The establishment,		39.61	47.72	12.67
Knives, machine	five hundred and seventy-six inches	52.08	47.92	—
The establishment,		46.53	51.69	1.78
Lathes,	one	42.86	22.86	34.28
The establishment,		75.20	20.78	4.02
Lathes,	eleven	83.00	17.00	—
The establishment,		83.64	11.15	5.21
Lathes, bench	one	60.00	25.00	15.00
The establishment,		63.24	22.85	13.91
Lathes, engine	one	27.50	20.00	52.50
The establishment,		53.07	33.92	13.01
Lathes, wood-turning	one	65.57	34.43	—
The establishment,		55.86	34.85	9.29
Lathes, wood-turning	one	62.50	37.50	—
The establishment,		52.83	37.74	9.43
Loom harnesses,	forty thousand sets . .	34.68	60.00	5.32
The establishment,		38.76	46.27	14.97
Loom harnesses,	one thousand sets . .	40.61	59.39	—
The establishment,		39.36	39.24	21.40
Loom harnesses,	one hundred sets . . .	35.00	63.00	2.00
The establishment,		66.08	29.57	4.35
Loom pickers,	one hundred pounds . .	41.67	58.33	—
The establishment,		45.07	50.75	4.18
Loom pickers,	one barrel	16.28	83.72	—
The establishment,		15.30	82.82	1.88
Looms, carpet	one	62.50	37.50	—
The establishment,		57.11	31.33	11.56
Machinery, carding	one machine	27.22	58.33	14.45
The establishment,		48.00	31.05	20.95
Machines, beating-out	one	60.00	40.00	—
The establishment,		61.47	34.20	4.33
Machines, cloth-folding	one	45.83	35.00	19.17
The establishment,		57.94	25.44	16.62
Machines, drilling (upright) . .	twelve	37.31	36.78	25.91
The establishment,		65.03	27.45	7.52
Machines, leather-splitting . .	one	60.00	40.00	—
The establishment,		31.80	58.31	9.89
Machines, milling	one	40.00	20.00	40.00
The establishment,		68.23	24.47	7.30
Machines, nail (wire)	one	68.00	32.00	—
The establishment,		25.06	72.62	2.32
Machines, polking	one	66.67	33.33	—
The establishment,		8.29	56.05	35.66

MACHINES AND MACHINERY — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Machines, putting out	one	48.00	52.00	—
The establishment,		23.13	40.16	36.71
Machines, washing	one	40.00	60.00	—
The establishment,		35.26	53.77	5.97
Machines, washing	one	33.33	66.67	—
The establishment,		40.46	49.27	10.27
Machines, woodworking	one	53.33	26.67	20.00
The establishment,		58.62	36.11	5.27
Meters, water	one	26.32	57.89	15.79
The establishment,		69.33	25.15	5.52
Meters, water	one	55.56	44.44	—
The establishment,		42.61	33.49	23.90
Packing, combination	one pound	76.00	24.00	—
The establishment,		67.38	32.62	—
Parers, apple	one dozen	47.43	52.57	—
The establishment,		30.03	61.42	8.55
Plates, screen	one	17.89	77.52	4.59
The establishment,		21.03	72.88	6.04
Presses, printing	one	60.00	40.00	—
The establishment,		56.33	35.68	7.99
Pulleys,	one	58.33	41.67	—
The establishment,		23.81	68.12	8.07
Pumps, copper	one hundred	24.24	55.76	20.00
The establishment,		19.89	40.52	39.59
Radiators, indirect	one hundred	31.25	62.50	6.25
The establishment,		47.47	46.28	6.25
Reeds, weaving	one hundred	55.56	44.44	—
The establishment,		47.21	42.25	10.54
Reeds, weaving	five thousand	28.65	31.15	40.20
The establishment,		31.14	68.86	—
Roll bars,	one thousand pounds	16.67	83.33	—
The establishment,		35.30	61.34	3.36
Rolls,	twenty thousand	43.09	56.91	—
The establishment,		43.09	56.91	—
Rolls, calender	fourteen	35.71	64.29	—
The establishment,		24.19	62.03	13.78
Rolls, drawing	one thousand	16.67	83.33	—
The establishment,		33.27	63.94	2.79
Rolls, spinning (long ring) . . .	one hundred	40.00	60.00	—
The establishment,		30.17	66.97	2.86
Saw mills,	one	28.00	72.00	—
The establishment,		59.88	32.77	7.35
Saw mills,	one	33.33	66.67	—
The establishment,		43.50	46.16	10.34
Shafting,	one hundred pounds	60.00	40.00	—
The establishment,		60.66	39.34	—
Shuttles,	one dozen	33.33	66.67	—
The establishment,		46.85	52.47	0.68
Shuttles,	one dozen	35.34	62.83	1.83
The establishment,		37.45	36.21	26.34
Soda water apparatus,	one	64.40	30.28	5.32
The establishment,		43.86	42.66	8.48
Spindles, cop	one thousand	85.71	14.29	—
The establishment,		75.26	18.99	5.75
Spoolers, yarn	one	40.00	35.56	24.44
The establishment,		33.20	58.31	8.49
Spools,	one thousand	56.25	43.75	—
The establishment,		57.80	42.20	—

MACHINES AND MACHINERY — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Stamps, rubber	one line three inches long .	60.00	40.00	—
The establishment,		72.53	23.02	4.45
Taps, plate	one	72.73	9.09	18.18
The establishment,		58.54	20.71	20.75
Valves, safety	one	56.67	43.33	—
The establishment,		39.03	20.32	40.65
Wheels, turbine	one	70.59	29.41	—
The establishment,		79.68	13.15	7.17
Wheels, wood	one	40.00	46.67	13.33
The establishment,		62.74	35.85	1.41
Windlasses,	one	40.00	60.00	—
The establishment,		42.05	38.42	18.93

METALS AND METALLIC GOODS:

Anchors,	one ton	50.00	50.00	—
The establishment,		44.92	44.81	10.27
Anchors, trawl	five tons	20.00	80.00	—
The establishment,		28.03	70.08	1.89
Ball cocks,	one gross	23.08	76.92	—
The establishment,		46.49	40.79	12.72
Bars, grate	one ton	10.00	75.00	15.00
The establishment,		37.15	57.06	5.79
Blacksmithing, . . . . .	. . . . .	47.06	52.94	—
The establishment,		35.88	57.42	6.70
Boilers, stove	five hundred	20.00	80.00	—
The establishment,		35.41	54.96	9.63
Boilers, wash	six	25.00	75.00	—
The establishment,		50.42	49.05	0.53
Boilers, wash	one hundred	17.01	82.99	—
The establishment,		26.10	61.36	12.54
Bracelets,	one pair	50.00	50.00	—
The establishment,		62.61	31.31	6.08
Broilers, wire	ten dozen	35.29	64.71	—
The establishment,		39.79	50.65	9.56
Buttons,	one hundred gross	29.24	70.76	—
The establishment,		22.75	77.25	—
Buttons, suspender (tin)	ten thousand, eight hundred gross	66.51	33.49	—
The establishment,		53.74	38.86	7.40
Cabinets, oil	twenty-five	24.24	75.76	—
The establishment,		41.70	49.52	8.78
Cans, milk	one hundred	37.93	56.90	5.17
The establishment,		51.19	45.38	3.43
Cans, shipping	one hundred	13.16	81.58	5.26
The establishment,		35.64	64.36	—
Cans, tin	twenty-four	50.00	41.67	8.33
The establishment,		37.92	58.75	3.33
Cans, tin	one hundred thousand	16.67	83.33	—
The establishment,		17.65	80.47	1.88
Castings,	fifty-one thousand pounds	25.41	68.14	6.45
The establishment,		26.87	72.06	1.07
Castings, horse rake	one ton	37.78	62.22	—
The establishment,		41.54	43.85	14.61
Castings, iron	one hundred pounds	44.44	55.56	—
The establishment,		31.94	43.68	24.38
Castings, iron	one hundred pounds	50.00	50.00	—
The establishment,		47.35	42.51	10.14

METALS AND METALLIC GOODS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Castings, iron	one ton	26.67	44.44	28.89
The establishment,		19.94	60.63	19.43
Castings, iron	one ton	41.09	30.14	28.77
The establishment,		42.50	38.61	18.89
Castings, iron	one ton	37.50	62.50	—
The establishment,		45.72	43.01	11.27
Castings, iron	one ton	40.00	60.00	—
The establishment,		49.53	50.42	—
Castings, iron	one ton	45.00	55.00	—
The establishment,		41.34	54.35	4.31
Castings, iron	six hundred tons	46.79	53.01	0.20
The establishment,		41.47	46.97	11.56
Castings, machine	five hundred pounds	17.95	82.05	—
The establishment,		22.83	70.00	7.17
Castings, machine	one ton	45.42	54.58	—
The establishment,		54.57	45.43	—
Castings, machine	one ton	46.51	30.23	23.26
The establishment,		51.43	34.72	13.85
Chains, gold-plated	one dozen	44.17	45.83	10.00
The establishment,		63.25	29.56	7.19
Chains, neck . . . . .	. . . . .	31.58	51.18	17.24
The establishment,		33.77	66.23	—
Chains, rolled-plate	one dozen	62.50	37.50	—
The establishment,		50.36	37.25	12.39
Chains, vest . . . . .	. . . . .	53.30	46.70	—
The establishment,		45.53	46.70	7.72
Chains, vest	one dozen	25.00	62.50	12.50
The establishment,		41.86	54.52	3.62
Chains, vest (gold-plated)	one dozen	50.00	50.00	—
The establishment,		37.31	58.35	4.34
Charms, rolled-plate (for watch chains)	eighteen thousand	37.50	62.50	—
The establishment,		42.86	57.14	—
Checks and springs, door	five thousand	18.29	54.74	26.97
The establishment,		22.51	59.15	18.34
Cloth, wire	one hundred thousand feet	42.51	56.49	—
The establishment,		23.76	75.33	0.91
Ear-drops, . . . . .	. . . . .	52.68	34.15	13.17
The establishment,		52.68	34.15	13.17
Ears, pail	one hundred thousand	15.38	84.62	—
The establishment,		40.58	58.50	0.92
Eyelets,	one million	26.00	70.00	4.00
The establishment,		18.51	73.94	7.55
Faucets, brass	one dozen	38.89	61.11	—
The establishment,		38.63	53.52	7.80
Ferrules, wire	one thousand	26.92	69.23	3.85
The establishment,		34.55	60.56	4.89
Fittings, pipe (brass)	one hundred pounds	32.35	67.65	—
The establishment,		39.40	39.22	21.38
Furnaces,	one	34.29	65.71	—
The establishment,		44.12	44.14	11.74
Gold foil,	one ounce	8.70	91.30	—
The establishment,		5.43	91.57	—
Gold leaf,	one package	22.50	72.50	5.00
The establishment,		23.59	76.41	—
Gold leaf,	ten packages	25.85	73.17	0.98
The establishment,		29.58	70.33	0.09
Handles, coffin	one dozen pairs	31.62	36.00	32.38
The establishment,		38.80	41.94	19.26

METALS AND METALLIC GOODS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Hangers, door (iron)	four thousand, two hundred and fifty-three	46.95	53.05	—
The establishment,		42.72	48.25	9.03
Holders, eyeglass (brass)	one gross	57.14	42.86	—
The establishment,		53.76	41.24	—
Horseshoeing,	four shoes	31.03	68.97	—
The establishment,		31.03	68.97	—
Horseshoeing,	four shoes	52.00	48.00	—
The establishment,		29.38	60.09	10.53
Horseshoeing,	four shoes	33.33	66.67	—
The establishment,		36.36	60.00	3.64
Horseshoeing,	four shoes	50.00	50.00	—
The establishment,		63.24	33.73	3.03
Horseshoes,	one hundred	20.59	79.41	—
The establishment,		84.46	8.50	7.04
Hose couplings,	one	25.00	75.00	—
The establishment,		31.12	45.35	23.53
Iron, bar	one ton	17.65	70.59	11.76
The establishment,		19.28	80.20	0.52
Iron, bar	one ton	19.35	64.52	16.13
The establishment,		20.15	78.78	1.07
Iron, bar (merchant)	one ton	28.24	68.82	2.94
The establishment,		28.41	67.08	4.51
Iron, galvanized	one hundred pounds	45.19	54.81	—
The establishment,		38.59	46.94	14.47
Iron, tunnel	four and one-half tons . . .	68.25	31.75	—
The establishment,		65.63	34.37	—
Jewelry, . . . . .	. . . . .	50.02	20.00	29.98
The establishment,		63.99	30.14	5.87
Jewelry, . . . . .	. . . . .	76.54	19.72	3.74
The establishment,		63.01	23.51	13.48
Keys,	two thousand, two hundred and fifty keys	66.67	33.33	—
The establishment,		29.51	55.74	14.75
Knives,	one dozen	75.42	24.58	—
The establishment,		71.86	15.82	12.32
Knives, table	one dozen	88.75	11.25	—
The establishment,		51.87	37.65	10.48
Knives, table	one hundred gross	61.54	38.46	—
The establishment,		72.24	24.92	2.84
Knobs, steel (nickel-plated)	one thousand	33.76	48.76	17.48
The establishment,		28.92	62.87	8.21
Letters, steel	thirty	80.07	18.56	1.37
The establishment,		9.49	88.52	1.99
Nails,	one keg	39.11	60.89	—
The establishment,		35.09	57.48	7.43
Nails, horse	one thousand pounds . . .	16.54	57.90	25.56
The establishment,		21.44	64.12	14.44
Nails, horse	sixteen hundred tons . . .	28.57	57.14	14.29
The establishment,		36.16	57.13	6.71
Nails, iron (cut)	one keg	31.43	53.57	15.00
The establishment,		33.76	61.19	5.05
Needles,	one thousand	85.00	15.00	—
The establishment,		42.94	57.06	—
Needles,	one thousand	85.00	15.00	—
The establishment,		65.95	24.50	9.55
Needles, knitting-machine	one thousand	57.14	15.00	27.86
The establishment,		71.50	20.12	8.38

METALS AND METALLIC GOODS—Continued.

NAMES OF ARTICLES, ETC.	QUANTITIES	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Needles, knitting-machine	one thousand	85.71	14.29	—
The establishment,		79.03	10.77	10.20
Needles, sewing-machine	one thousand	75.00	15.00	10.00
The establishment,		85.05	8.60	6.35
Needles, sewing-machine	one thousand	73.33	26.67	—
The establishment,		68.78	14.82	16.40
Needles, sewing-machine	one thousand	77.14	22.86	—
The establishment,		77.13	14.74	8.13
Pails, milk	one dozen	37.50	62.50	—
The establishment,		41.32	44.33	14.33
Pails, milk (strainer)	one hundred	31.82	68.18	—
The establishment,		39.03	60.97	—
Panels, furniture	one thousand square feet	80.00	20.00	—
The establishment,		37.58	16.97	45.45
Pens (gold) and pen holders,	one	30.00	70.00	—
The establishment,		41.25	55.81	2.94
Pins, bar (ladies')	one gross	73.28	26.72	—
The establishment,		53.84	37.85	8.31
Pins (jewelry),	one dozen	75.00	25.00	—
The establishment,		59.46	31.40	9.14
Pins, lace	one dozen	34.37	52.74	12.89
The establishment,		34.37	52.74	12.89
Pins, scarf	one dozen	20.00	80.00	—
The establishment,		31.98	37.91	30.11
Pipe, iron	one ton	41.52	58.48	—
The establishment,		37.66	50.76	11.58
Pipe, tin	one hundred feet	26.67	73.33	—
The establishment,		44.41	45.37	10.22
Plated stock, gold	one hundred ounces	6.00	92.00	2.00
The establishment,		—	98.28	1.62
Pots, coffee	one gross	33.33	66.67	—
The establishment,		32.43	67.57	—
Pots, coffee	one gross	41.67	58.18	0.15
The establishment,		50.84	30.48	18.68
Razors,	one gross	58.33	16.67	25.00
The establishment,		70.27	15.14	14.59
Rivets,	one pound	16.67	66.66	16.67
The establishment,		22.30	54.42	23.28
Rivets,	one hundred pounds	35.72	53.57	10.71
The establishment,		41.82	51.31	6.87
Rivets,	one ton	20.00	80.00	—
The establishment,		32.80	53.03	14.17
Rivets,	one ton	14.22	85.31	0.47
The establishment,		25.85	61.56	12.59
Rivets,	one ton	20.00	80.00	—
The establishment,		32.78	52.70	14.52
Roll bars,	one ton	22.22	77.78	—
The establishment,		24.77	72.43	2.80
Roofing, tin	forty-nine squares	28.57	71.43	—
The establishment,		29.32	68.56	2.12
Scales,	one hundred and forty-six pounds	19.23	30.77	50.00
The establishment,		69.99	26.92	3.09
Scales, special	one	80.00	20.00	—
The establishment,		75.92	9.09	14.99
Screws, chair	one hundred	28.95	39.47	31.58
The establishment,		28.06	62.38	9.56
Screws, clinching (brass)	one pound	20.00	56.00	24.00
The establishment,		15.30	66.26	18.44

METALS AND METALLIC GOODS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Screws, iron (for wood)	one gross	50.00	50.00	—
The establishment,		39.07	43.07	17.86
Screws, iron (for wood)	one gross	28.17	70.42	1.41
The establishment,		29.24	61.54	9.22
Setting instruments,	one thousand	45.00	30.00	25.00
The establishment,		80.14	6.50	13.36
Shears,	one dozen	70.57	29.43	—
The establishment,		54.55	20.74	24.71
Sheathing, yellow-metal	one pound	30.64	67.40	1.96
The establishment,		16.63	76.61	6.76
Sieves, flour	one dozen	10.53	89.47	—
The establishment,		42.17	53.17	4.66
Sieves, wire	one hundred dozen	31.37	62.75	5.88
The establishment,		34.33	62.71	2.46
Sleigh shoes,	four tons	16.67	83.33	—
The establishment,		54.67	37.13	8.20
Speaking tubes,	one thousand feet	11.11	74.45	14.44
The establishment,		17.52	76.85	5.63
Spikes,	one ton	13.74	74.00	12.26
The establishment,		15.44	80.21	4.35
Staples,	one ton	23.08	61.54	15.38
The establishment,		15.11	73.26	11.63
Steels, butcher	one dozen	33.33	66.67	—
The establishment,		86.99	7.43	5.58
Stoves,	one	50.00	50.00	—
The establishment,		32.43	67.57	—
Stoves,	one	16.67	83.33	—
The establishment,		40.19	52.55	7.26
Strainers,	one gross	50.00	50.00	—
The establishment,		49.73	49.73	0.54
Tableware, sterling silver	one ounce	20.69	79.31	—
The establishment,		23.37	68.55	8.08
Tacks,	one pound	50.00	50.00	—
The establishment,		29.75	70.25	—
Tacks and nails, shoe	eighty-six tons	22.95	31.82	45.23
The establishment,		42.31	54.74	2.95
Teapots,	one dozen	44.46	55.54	—
The establishment,		31.13	26.12	42.75
Tinware,	one thousand articles	12.50	62.50	25.00
The establishment,		52.04	33.86	14.70
Type, metal-bodied	eighteen thousand, seven hun- dred fonts	34.71	42.42	22.87
The establishment,		42.60	45.55	11.85
Wire,	one hundred and sixty-three tons	25.79	55.11	19.10
The establishment,		31.12	66.94	1.94
Wire, card	one ton	42.22	57.78	—
The establishment,		31.16	65.70	3.14
Wire, card (tempered steel)	one hundred pounds	33.33	66.67	—
The establishment,		27.39	44.54	28.07
Wire, fine	one ton	50.00	50.00	—
The establishment,		39.59	53.98	6.43
Wire, iron	one pound	40.74	55.56	3.70
The establishment,		37.26	60.59	2.15
Wire, mattress	one ton	33.50	66.50	—
The establishment,		31.81	68.19	—
Wire cloth, Fourdrinier	two hundred square feet	45.45	54.55	—
The establishment,		36.24	56.95	6.81

METALS AND METALLIC GOODS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Wires, bonnet	one thousand dozen . . .	7.69	80.69	11.62
The establishment,		10.80	83.15	6.05
Wires, bonnet (cotton-covered) . . .	one hundred dozen . . .	2.78	97.22	—
The establishment,		1.89	88.66	9.45

MIXED TEXTILES.

Felting,	one square foot	20.83	62.50	16.67
The establishment,		10.62	84.63	4.75
Flannel, shaker (cotton warp) . . .	one hundred thousand yards	19.35	18.97	61.68
The establishment,		25.58	67.87	6.55
Linings, boot	one hundred yards	13.04	78.26	8.70
The establishment,		10.59	87.30	2.11
Velours,	fifty yards	35.29	41.18	23.53
The establishment,		19.20	63.74	17.06
Waste, wiping and packing	one ton	4.76	95.24	—
The establishment,		7.54	87.07	5.39

MODELS AND PATTERNS.

Patterns,	one set	15.38	84.62	—
The establishment,		61.51	30.53	7.96

MUSICAL INSTRUMENTS AND MATERIALS.

Banjos,	one	44.44	55.56	—
The establishment,		19.51	60.54	19.95
Boards, organ-reed	one thousand octave boards	65.00	35.00	—
The establishment,		36.19	57.58	6.23
Cases, piano	two thousand, five hundred and ninety-four	36.30	51.97	11.73
The establishment,		36.96	52.92	10.12
Music stands,	one	50.00	50.00	—
The establishment,		20.17	79.83	—
Music stands,	one	50.00	50.00	—
The establishment,		30.09	60.18	9.73
Organs, church	one	50.00	16.67	33.33
The establishment,		66.97	29.53	3.50
Organs, reed	one	55.00	45.00	—
The establishment,		47.65	40.57	11.78
Organs, reed (cabinet)	one	31.51	36.67	31.82
The establishment,		35.35	41.17	23.48
Organs, reed (double)	one	48.00	13.71	38.29
The establishment,		39.09	57.15	3.76
Piano tops,	one	30.23	69.77	—
The establishment,		50.64	48.09	1.27
Pianos,	one	33.33	60.00	6.67
The establishment,		28.44	63.17	8.39
Pianos,	one	64.67	35.33	—
The establishment,		48.41	40.34	11.25
Pianos,	one	40.62	59.38	—
The establishment,		33.15	58.41	8.44
Pianos,	ten	54.05	40.54	5.41
The establishment,		47.62	38.09	14.29

MUSICAL INSTRUMENTS AND MATERIALS—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Pianos,	eight hundred	34.53	53.88	11.59
The establishment,		27.44	60.22	12.34
Sharps,	one thousand	43.75	56.25	—
The establishment,		19.09	80.91	—
Sharps, organ	one thousand sets	66.67	33.33	—
The establishment,		63.49	25.40	11.11

OILS AND ILLUMINATING FLUIDS.

Oil,	one barrel	6.79	67.50	25.71
The establishment,		5.92	92.14	1.94

PAINTS, COLORS, AND CRUDE CHEMICALS.

Copperas,	three thousand, one hundred and eighty-five tons	22.91	41.66	35.43
The establishment,		33.91	54.32	11.77
Japan black,	one pound	23.53	70.59	5.88
The establishment,		13.78	71.14	15.08
Paint, green	one thousand pounds	10.00	90.00	—
The establishment,		10.98	84.75	4.27
Paints, mixed	one gallon	10.00	90.00	—
The establishment,		8.63	82.55	8.82

PAPER AND PAPER GOODS.

Bags, paper	one thousand	20.00	72.50	7.50
The establishment,		6.50	87.36	6.14
Card-mounts,	one thousand	17.50	48.80	33.70
The establishment,		54.78	36.29	8.93
Envelopes,	one thousand	13.33	86.67	—
The establishment,		9.70	85.20	5.10
Envelopes,	one thousand	10.00	65.00	25.00
The establishment,		26.94	60.28	12.78
Envelopes,	one thousand	18.69	81.31	—
The establishment,		16.54	81.05	2.41
Envelopes,	three hundred and forty-three million	13.32	77.41	9.27
The establishment,		14.33	83.29	2.38
Felt, roofing	one ton	13.54	58.33	28.13
The establishment,		16.94	69.67	13.39
Friezes, hand-made	ten rolls	66.67	33.33	—
The establishment,		38.76	54.81	6.43
Hangings, paper	one ton	14.45	72.22	13.33
The establishment,		21.89	59.63	18.48
Hangings, paper	one ton	15.00	65.00	20.00
The establishment,		14.48	75.46	10.06
Leatherette,	one roll	17.39	82.61	—
The establishment,		18.18	67.36	14.46
Paper,	one thousand pounds	12.86	68.57	18.57
The establishment,		12.63	76.16	11.21
Paper,	one ton	15.72	67.14	17.14
The establishment,		16.69	70.02	13.29

PAPER AND PAPER GOODS — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Paper,	one ton	16.67	72.50	10.83
The establishment,		18.01	77.27	4.72
Paper,	one ton	25.00	47.50	27.50
The establishment,		23.23	63.48	13.29
Paper,	one ton	15.77	84.23	—
The establishment,		15.53	83.02	1.45
Paper,	one ton	12.50	87.50	—
The establishment,		16.52	79.88	3.60
Paper,	three tons	29.41	70.59	—
The establishment,		20.48	72.41	7.11
Paper, book	one ton	15.38	50.00	34.62
The establishment,		20.50	76.17	3.33
Paper, building	one ton	50.00	50.00	—
The establishment,		14.22	79.94	5.84
Paper, carpet-lining	one ton	17.86	75.00	7.14
The establishment,		18.96	69.11	11.93
Paper, collar	one pound	21.43	78.57	—
The establishment,		15.16	67.38	17.46
Paper (for glazing),	one pound	11.77	76.47	11.76
The establishment,		12.62	80.01	7.37
Paper, glazed	one ream	27.27	72.73	—
The establishment,		12.64	77.63	9.73
Paper, glazed	one ream	33.33	66.67	—
The establishment,		18.40	76.33	5.22
Paper, ledger and record	one ton	25.33	74.67	—
The establishment,		25.20	70.30	4.50
Paper, ledger and writing	five hundred tons	23.27	57.63	19.10
The establishment,		24.26	63.16	12.58
Paper, manila	one ton	15.45	84.55	—
The establishment,		13.55	70.91	15.54
Paper, manila	forty tons	16.79	83.21	—
The establishment,		19.17	79.47	1.36
Paper, music	one foot	44.45	33.33	22.22
The establishment,		57.22	22.27	20.51
Paper, news	one ton	14.70	64.71	20.59
The establishment,		14.60	71.95	13.45
Paper, news	one ton	9.28	90.72	—
The establishment,		10.29	84.29	5.42
Paper, news	one ton	13.83	86.17	—
The establishment,		18.45	67.00	14.55
Paper, plate	one ream	27.27	70.91	1.82
The establishment,		17.07	71.00	11.93
Paper, press board	one pound	28.57	71.43	—
The establishment,		31.56	53.05	15.39
Paper, printing	one hundred pounds	17.34	65.69	16.97
The establishment,		20.17	74.26	5.57
Paper, printing	one hundred pounds	17.36	64.84	17.80
The establishment,		18.12	55.52	26.36
Paper, roofing	one ton	19.86	80.14	—
The establishment,		19.08	77.01	3.91
Paper, rope (manila)	one ton	13.22	67.80	18.98
The establishment,		14.55	74.57	10.88
Paper, rope (manila)	one ton	11.52	69.09	19.39
The establishment,		12.05	76.07	11.88
Paper, rope (manila)	three hundred and thirty- seven thousand, four hun- dred and seventy pounds	23.71	76.29	—
The establishment,		22.68	72.98	4.34

PAPER AND PAPER GOODS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Paper, sheathing	one ton	33.33	55.56	11.11
The establishment,		11.75	88.25	—
Paper, wrapping	one ton	10.91	80.00	9.09
The establishment,		11.62	81.44	6.94
Paper, wrapping	one ton	15.18	78.57	6.25
The establishment,		14.10	74.47	11.43
Paper, writing	one pound	16.67	83.33	—
The establishment,		14.99	77.93	7.08
Paper, writing	one pound	14.29	85.71	—
The establishment,		18.32	74.13	7.55
Paper, writing	one pound	22.73	77.27	—
The establishment,		22.20	69.51	8.29
Paper, writing	one pound	31.85	68.15	—
The establishment,		26.67	52.98	20.35
Paper, writing	one ton	30.00	30.00	40.00
The establishment,		25.29	66.24	8.47
Paper, writing	one ton	20.00	40.00	40.00
The establishment,		19.91	73.99	6.10
Paper, writing	one pound	18.18	63.64	18.18
The establishment,		22.88	65.52	11.60
Paper, writing	one pound	48.89	51.11	—
The establishment,		16.93	76.42	6.65
Paper, writing	one hundred pounds	21.98	57.65	20.37
The establishment,		25.88	67.45	6.67
Paper, writing	one hundred pounds	24.48	67.67	7.85
The establishment,		19.76	61.43	18.81
Paper, writing	one thousand pounds	23.59	67.86	8.55
The establishment,		24.07	66.49	9.44
Paper, writing	one ton	23.81	71.43	4.76
The establishment,		28.65	62.99	8.36
Tags,	one hundred thousand	27.78	72.22	—
The establishment,		18.63	77.12	4.25
Wood pulp,	one ton	22.58	25.81	51.61
The establishment,		35.46	26.99	37.55

PERFUMES, TOILET ARTICLES, ETC.

Perfume extracts,	one pound	7.50	92.50	—
The establishment,		27.37	72.63	—

PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

Photographs,	one dozen	35.00	32.00	33.00
The establishment,		59.46	16.83	23.71
Photographs,	one dozen	50.00	50.00	—
The establishment,		41.38	22.76	35.96
Photographs, cabinet	one dozen	28.57	28.57	42.86
The establishment,		36.06	32.73	31.21
Portraits, crayon	one	50.00	15.00	35.00
The establishment,		38.84	25.53	35.65

POLISHES AND DRESSING.

Blacking,	one hundred barrels	11.67	86.54	1.79
The establishment,		11.27	85.93	2.80

POLISHES AND DRESSING — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Crucibles,	one thousand	22.70	77.30	—
The establishment,		20.85	68.13	11.02
Dressing, leather	one thousand gallons	0.87	86.96	12.17
The establishment,		6.58	78.41	15.01
Ink, burnishing	one thousand gallons	16.67	83.33	—
The establishment,		10.38	64.66	24.96
Varnish,	one thousand gallons	10.42	89.58	—
The establishment,		4.32	91.25	4.43
Whiting,	one hundred tons	25.00	52.50	22.50
The establishment,		28.59	66.17	5.24

PRINTING, PUBLISHING, AND BOOKBINDING.

Diaries,	one dozen	46.67	53.33	—
The establishment,		38.95	45.60	15.45

RAILROAD CONSTRUCTION.

Forgings,	one ton	50.00	50.00	—
The establishment,		49.82	49.82	0.18

RUBBER AND ELASTIC GOODS.

Belting, rubber	one pound	11.54	88.46	—
The establishment,		10.89	75.99	13.12
Boots, heavy (short, men's)	one hundred pairs	23.26	76.74	—
The establishment,		26.65	71.97	1.33
Car-step treads, rubber	one dozen	17.65	70.59	11.76
The establishment,		25.31	56.70	17.99
Rubber, old (ground)	one ton	15.39	46.15	38.46
The establishment,		11.52	73.43	15.05
Web, elastic	one gross yards	30.30	69.70	—
The establishment,		24.02	67.23	8.75
Web, elastic	one gross yards	30.67	48.33	21.00
The establishment,		21.73	74.56	3.71

SALT.

Salt,	one bushel	100.00	—	—
The establishment,		52.23	—	47.77

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

Artificial legs,	one	66.00	34.00	—
The establishment,		75.92	19.89	4.19
Compasses, mariners'	one	55.83	43.03	1.14
The establishment,		55.41	44.26	0.33
Elastic stockings,	two pairs	55.56	44.44	—
The establishment,		—	98.43	1.57
Forceps,	one dozen	77.78	22.22	—
The establishment,		91.47	8.53	—
Spectacles, steel	one dozen	60.61	24.79	14.60
The establishment,		31.67	56.99	11.34

SILK AND SILK GOODS.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Machine twist,	one thousand pounds	17.00	76.25	6.75
The establishment,		18.63	76.92	4.45
Silk thread,	one hundred pounds	12.50	63.00	24.50
The establishment,		16.98	78.63	4.39
Woven goods,	one yard	27.78	72.22	—
The establishment,		35.63	63.85	0.52

SPORTING AND ATHLETIC GOODS.

Fishing rods,	one dozen	50.00	50.00	—
The establishment,		51.80	40.56	7.64
Skates, roller	one pair	26.67	60.00	13.33
The establishment,		30.96	42.11	26.93
Skates, roller	one hundred pairs	22.50	77.50	—
The establishment,		39.29	46.68	14.03
Skates, roller	three thousand pairs	20.00	76.00	4.00
The establishment,		19.48	78.11	2.41

STONE.

Ashlar, rough	one cubic foot	88.00	12.00	—
The establishment,		65.72	21.85	12.43
Cemetery work,	one post	45.45	54.55	—
The establishment,		54.84	45.04	0.12
Curbstones,	one hundred feet	90.48	9.52	—
The establishment,		80.06	19.94	—
Curbstones,	one thousand feet	92.00	8.00	—
The establishment,		97.11	2.89	—
Flint,	one ton	6.98	93.02	—
The establishment,		45.90	40.05	14.05
Freestone,	one ton	43.01	49.10	7.89
The establishment,		42.55	48.58	8.87
Freestone, dressed	one cubic foot	20.00	52.00	28.00
The establishment,		37.50	62.50	—
Furniture-tops, marble	one thousand square feet	41.67	58.33	—
The establishment,		45.19	50.20	4.61
Granite,	one foot	55.56	44.44	—
The establishment,		46.15	53.85	—
Granite, fine	one surface foot	50.00	50.00	—
The establishment,		98.35	1.65	—
Granite, finished	one thousand square feet	75.00	25.00	—
The establishment,		55.97	42.19	1.84
Granite, quarried	one thousand tons	96.97	3.03	—
The establishment,		96.90	3.03	0.07
Headstones, marble	one	46.88	30.00	23.12
The establishment,		60.78	37.99	1.23
Monuments,	one	25.00	75.00	—
The establishment,		27.92	70.59	1.49
Monuments,	one	50.00	25.00	25.00
The establishment,		86.71	7.95	5.34
Monuments,	one	28.57	71.43	—
The establishment,		65.09	17.90	17.01
Monuments, granite	two hundred	61.72	29.92	8.36
The establishment,		78.41	21.15	0.44

STONE — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Monuments, granite	one	81.82	18.18	—
The establishment,		68.30	28.65	3.05
Sandstone, cut	one hundred cubic feet	40.00	46.67	13.33
The establishment,		60.92	38.59	0.49
Sandstone, rough	one hundred cubic feet	86.67	13.33	—
The establishment,		89.98	3.89	6.13
Stone, cut	one foot	53.57	42.86	3.57
The establishment,		79.95	20.05	—
Stone, cut	one hundred cubic feet	15.00	25.00	60.00
The establishment,		56.68	41.23	2.09
Tablets, grave	forty	57.14	42.86	—
The establishment,		50.63	49.37	—
Tablets, marble	one hundred	80.00	20.00	—
The establishment,		54.65	45.95	—
Tubs, soapstone	one set	27.78	72.22	—
The establishment,		38.11	57.63	4.26

STRAW AND PALM LEAF GOODS.

Hats, Canton	fifteen dozen	20.00	80.00	—
The establishment,		16.83	77.45	5.72
Hats, palm leaf	one dozen	57.14	42.86	—
The establishment,		30.77	68.38	0.85
Hats, straw	one dozen	25.00	75.00	—
The establishment,		20.04	77.26	2.70
Hats, straw	one dozen	33.33	66.67	—
The establishment,		30.34	51.91	17.75
Hats, straw	one dozen	50.00	50.00	—
The establishment,		36.81	60.88	2.31

TALLOW, CANDLES, SOAP, AND GREASE.

Candles,	one pound	4.17	95.83	—
The establishment,		4.01	93.94	2.05
Soap,	one hundred pounds	8.00	66.67	25.33
The establishment,		14.33	79.46	6.21
Soap, mineral	one box	10.53	89.47	—
The establishment,		33.16	60.80	6.04
Soap, soft	six barrels	33.33	66.67	—
The establishment,		32.90	43.64	3.46
Soap, soft	twenty barrels	12.50	75.00	12.50
The establishment,		38.66	61.34	—
Soap, textile	nine hundred and eighty tons	8.59	61.36	30.05
The establishment,		9.39	67.06	23.55
Soap powder,	one pound	7.14	57.14	35.72
The establishment,		6.68	92.88	0.44
Soap powder,	fourteen hundred pounds	22.22	77.78	—
The establishment,		24.51	75.49	—
Tallow,	three hundred and fifty thou- sand pounds	4.80	93.51	1.69
The establishment,		15.55	82.20	2.25
Tallow,	one ton	51.67	48.33	—
The establishment,		33.26	62.37	4.37
Tallow oil,	one hundred pounds	6.25	93.75	—
The establishment,		7.42	91.97	0.61

TOBACCO, SNUFF, AND CIGARS.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Cheroots, seed	one thousand	30.77	53.23	16.00
The establishment,		35.84	62.83	1.33
Cigars,	one thousand	47.43	52.57	-
The establishment,		47.45	52.55	-
Cigars,	one thousand	32.50	62.50	5.00
The establishment,		34.25	60.71	5.04
Cigars,	one thousand	50.00	50.00	-
The establishment,		67.15	32.85	-
Cigars,	one thousand	42.86	57.14	-
The establishment,		41.63	51.27	7.10
Cigars,	one thousand	55.56	44.44	-
The establishment,		47.37	52.63	-
Cigars,	one thousand	31.11	44.45	24.44
The establishment,		30.02	56.94	13.04
Cigars,	one thousand	50.00	50.00	-
The establishment,		16.36	81.82	1.82
Cigars,	one thousand	31.44	38.00	30.56
The establishment,		45.28	54.72	-
Cigars,	one thousand	35.42	64.58	-
The establishment,		13.61	79.04	7.35
Cigars,	one thousand	45.00	40.00	15.00
The establishment,		51.18	48.82	-
Cigars,	one thousand	27.08	56.25	16.67
The establishment,		50.41	49.59	-
Cigars,	one thousand	50.00	27.78	22.22
The establishment,		68.00	32.00	-
Cigars,	one thousand	30.77	55.77	13.46
The establishment,		36.75	60.78	2.47
Cigars,	one thousand	41.67	45.83	12.50
The establishment,		34.72	62.30	2.98
Cigars,	one thousand	52.17	47.83	-
The establishment,		41.24	56.50	2.26
Cigars,	one thousand	48.00	20.00	32.00
The establishment,		42.98	51.05	5.97
Cigars,	one thousand	26.92	57.69	15.39
The establishment,		29.14	67.59	3.27
Cigars,	one thousand	26.67	73.33	-
The establishment,		39.03	57.62	3.35
Cigars,	one thousand	33.33	50.00	16.67
The establishment,		36.17	47.24	16.59
Cigars,	one thousand	25.00	67.86	7.14
The establishment,		32.32	53.86	13.82
Cigars,	one thousand	37.50	62.50	-
The establishment,		60.61	39.12	0.27
Cigars,	one thousand	28.26	71.74	-
The establishment,		29.83	70.17	-
Cigars,	one thousand	55.56	44.44	-
The establishment,		52.08	41.67	6.25
Cigars,	one thousand	44.44	27.78	27.78
The establishment,		-	95.61	4.39
Cigars,	one thousand	52.78	47.22	-
The establishment,		55.91	44.09	-
Cigars,	one thousand	47.00	25.00	28.00
The establishment,		52.22	39.16	8.62
Cigars,	one thousand	33.33	66.67	-
The establishment,		26.63	67.14	6.23
Cigars,	one thousand	42.11	57.89	-
The establishment,		40.46	59.54	-

TOBACCO, SNUFF, AND CIGARS — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Cigars,	one thousand	42.10	31.58	26.32
The establishment,		48.31	48.31	3.38
Cigars,	one thousand	45.00	20.00	35.00
The establishment,		-	77.22	22.78
Cigars,	one thousand	45.00	43.75	11.25
The establishment,		36.15	63.61	0.24
Cigars,	one thousand	38.24	50.00	11.76
The establishment,		10.38	38.42	51.20
Cigars,	one thousand	52.18	33.04	14.78
The establishment,		55.74	42.87	1.39
Cigars,	one thousand	32.00	40.00	28.00
The establishment,		40.68	50.85	8.47
Cigars,	one thousand	32.00	64.00	4.00
The establishment,		60.00	40.00	-
Cigars,	one thousand	37.67	62.33	-
The establishment,		37.67	62.33	-
Cigars,	one thousand	38.30	46.81	14.89
The establishment,		38.51	61.49	-
Cigars,	one thousand	40.00	60.00	-
The establishment,		41.89	58.11	-
Cigars,	one thousand	40.00	32.00	28.00
The establishment,		44.67	55.33	-
Cigars,	one thousand	42.55	57.45	-
The establishment,		44.53	55.47	-
Cigars,	one thousand	30.85	69.15	-
The establishment,		47.61	52.39	-
Cigars,	one thousand	50.00	50.00	-
The establishment,		50.00	50.00	-
Cigars,	one thousand	12.70	39.68	47.62
The establishment,		21.07	76.48	2.45
Cigars,	one thousand	50.00	50.00	-
The establishment,		30.40	69.60	-
Cigars,	one thousand	35.00	65.00	-
The establishment,		52.83	47.17	-
Cigars,	one thousand	26.00	66.00	8.00
The establishment,		32.93	54.91	12.16
Cigars,	thirteen hundred	23.93	75.21	0.86
The establishment,		39.42	56.53	4.05
Cigars,	two thousand	48.65	51.35	-
The establishment,		56.35	43.65	-
Cigars,	thirty-eight thousand	41.10	58.90	-
The establishment,		37.55	53.82	8.63
Cigars,	one hundred and fifty thou- saud	25.00	75.00	-
The establishment,		24.19	75.81	-
Cigars,	two million	30.00	45.25	24.75
The establishment,		31.91	59.16	8.93
Cigars,	two million, one hundred and thirteen thousand, five hun- dred and fifty	44.34	45.02	10.64
The establishment,		41.90	52.02	6.08
Cigars, Havana	one thousand	40.00	60.00	-
The establishment,		41.61	56.13	2.26
Cigars, seed	one thousand	61.11	38.89	-
The establishment,		40.82	55.57	3.61
Cigars, seed and Havana	one thousand	25.58	74.42	-
The establishment,		31.42	68.58	-

TOBACCO, SNUFF, AND CIGARS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Snuff,	seventeen thousand, five hun- dred and five pounds . . .	18.28	30.39	51.33
The establishment,		20.44	62.03	17.53
Tobacco, plug	one pound	15.11	65.12	19.77
The establishment,		23.43	60.82	15.75

TOYS AND GAMES (CHILDREN'S).

Drums, toy	one dozen	33.34	33.33	33.33
The establishment,		49.52	47.78	2.70
Toys and games, . . . . .	. . . . .	36.81	19.03	44.16
The establishment,		53.87	31.18	14.95
Wagons, boys'	one dozen	25.00	65.00	10.00
The establishment,		49.38	45.19	5.43
Wagons, children's	one dozen	55.56	44.44	-
The establishment,		47.64	47.21	5.15

TRUNKS AND VALISES.

Bags, travelling	one dozen	35.72	59.52	4.76
The establishment,		39.85	58.90	1.25
Trunks, zinc	one dozen	16.40	83.60	-
The establishment,		20.02	78.49	1.49

WHIPS, LASHES, AND STOCKS.

Lashes,	one hundred dozen . . .	34.67	65.33	-
The establishment,		58.33	41.67	-
Whip butts,	one dozen	32.26	67.74	-
The establishment,		30.47	67.81	1.72
Whip lashes,	three hundred dozen . . .	23.09	76.91	-
The establishment,		-	100.00	-
Whip stocks,	one dozen	53.19	46.81	-
The establishment,		33.39	66.61	-
Whip stocks, rattan	one hundred dozen . . .	33.33	66.67	-
The establishment,		25.14	74.86	-
Whips,	one hundred dozen . . .	40.00	60.00	-
The establishment,		21.62	64.85	13.53
Whips,	one gross	51.61	48.39	-
The establishment,		20.48	46.27	33.25
Whips and lashes,	one dozen	63.79	36.21	-
The establishment,		57.83	32.85	9.32

WOODEN GOODS.

Axe helves,	one dozen	50.00	50.00	-
The establishment,		41.21	45.60	13.19
Axe helves,	one dozen	66.67	33.33	-
The establishment,		-	100.00	-
Barrels, half	one hundred	21.24	75.76	-
The establishment,		35.08	61.03	3.89
Barrels, half	thirty-five hundred . . .	28.12	71.88	-
The establishment,		38.33	61.67	-

WOODEN GOODS — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR —		
		Wages	Raw Ma- terials	Expenses (not specified)
Barrels, sugar	one hundred	20.59	79.41	—
The establishment,		17.98	80.60	1.42
Barrels, sugar	one hundred	20.59	79.41	—
The establishment,		16.50	68.38	15.12
Baskets,	one dozen	83.33	16.67	—
The establishment,		62.50	37.50	—
Baskets,	one dozen	64.38	35.62	—
The establishment,		61.86	34.02	4.12
Baskets,	one hundred	50.00	50.00	—
The establishment,		57.68	40.97	1.35
Baskets, bushel	one dozen	78.57	21.43	—
The establishment,		55.49	25.53	18.98
Baskets, bushel	fifty dozen	50.00	50.00	—
The establishment,		50.00	44.17	5.83
Baskets, coal	one dozen	72.00	24.00	4.00
The establishment,		—	80.77	19.23
Blocks, dye	one	41.67	41.67	16.66
The establishment,		56.27	26.05	17.68
Bungs (for mackerel kits),	ten thousand	50.00	50.00	—
The establishment,		44.83	45.59	9.58
Casks, nail	one hundred	39.29	60.71	—
The establishment,		47.88	45.69	6.43
Clothes driers,	four	17.86	42.86	39.28
The establishment,		57.73	24.60	17.67
Faucets, wooden	ten thousand	57.14	42.86	—
The establishment,		54.55	40.91	4.54
Handles, screw-driver	one hundred	47.62	52.38	—
The establishment,		65.49	33.17	1.34
Hoops,	two hundred thousand	50.00	50.00	—
The establishment,		50.00	50.00	—
Hoops, barrel	one thousand	61.54	38.46	—
The establishment,		—	100.00	—
Hoops and handles,	one thousand	37.88	30.30	31.82
The establishment,		71.43	23.57	—
Kegs, nail	one hundred	25.00	75.00	—
The establishment,		41.00	59.00	—
Kegs and half-barrels,	eighteen thousand	56.34	18.78	24.88
The establishment,		53.08	43.42	3.50
Kindlings,	one bushel	20.00	70.00	10.00
The establishment,		16.86	64.11	19.03
Ladders,	one thousand feet	57.78	42.22	—
The establishment,		56.52	43.48	—
Lasts,	one thousand	55.56	22.22	22.22
The establishment,		41.88	45.13	12.99
Lasts,	seventeen thousand pairs	41.35	24.85	33.80
The establishment,		52.48	32.12	15.40
Lasts,	one hundred pairs	28.57	28.57	42.86
The establishment,		45.36	41.66	12.98
Lasts,	one hundred pairs	48.00	52.00	—
The establishment,		48.71	42.93	8.36
Lasts,	one thousand pairs	62.50	33.33	4.17
The establishment,		63.18	36.43	0.39
Lasts,	one thousand pairs	68.75	31.25	—
The establishment,		59.88	20.96	19.16
Lasts, iron bottom	one hundred pairs	82.76	17.24	—
The establishment,		68.81	17.19	14.00
Lasts and patterns,	forty thousand	65.75	22.11	12.14
The establishment,		69.63	23.42	6.95

WOODEN GOODS — Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Lumber, kyanized	seven hundred and twenty-five thousand feet	34.48	53.64	11.88
The establishment,		37.50	58.33	4.17
Moulding,	one thousand feet	12.00	80.00	8.00
The establishment,		20.26	78.70	1.04
Moulding,	one thousand feet	44.44	55.56	—
The establishment,		27.28	61.82	10.90
Moulding, gilt	one thousand feet	27.27	72.73	—
The establishment,		41.46	51.83	6.71
Moulds, button	one gross	80.00	20.00	—
The establishment,		62.43	33.44	4.13
Pails,	seven hundred thousand	32.77	47.37	19.86
The establishment,		42.88	53.59	3.53
Pegs, shoe	one bushel	65.79	34.21	—
The establishment,		71.52	25.32	3.16
Pegs, shoe	one bushel	68.29	31.71	—
The establishment,		65.26	31.96	2.78
Racks, towel	one dozen	25.00	75.00	—
The establishment,		40.44	40.45	19.11
Razor strops,	one thousand	50.00	50.00	—
The establishment,		58.33	41.67	—
Rolling pins,	one hundred dozen	34.00	66.00	—
The establishment,		56.18	31.34	12.48
Rolls, skate	one thousand	32.79	65.57	1.64
The establishment,		41.95	57.23	0.82
Screws and clamps,	one hundred dozen	66.67	33.33	—
The establishment,		53.74	32.98	13.28
Tubs,	one nest of three tubs	20.83	54.17	25.00
The establishment,		35.98	59.97	4.05
Tubs,	one hundred	36.11	63.89	—
The establishment,		42.50	56.75	0.75
Tubs,	one hundred nests of three tubs	27.50	72.50	—
The establishment,		45.22	53.77	1.01
Wood, bundle	one thousand bundles	52.38	40.82	6.80
The establishment,		19.72	69.80	10.48
Wood, kindling	one cord	27.27	72.73	—
The establishment,		27.12	72.88	—
Wood, kindling	one cord	23.53	74.47	—
The establishment,		22.64	66.04	11.32
Wood, kindling	three hundred and fifty cords	34.53	65.47	—
The establishment,		34.53	65.47	—

WOOLLEN GOODS.

Blankets,	one	41.67	50.00	8.33
The establishment,		19.33	76.81	3.86
Blankets,	one pair	46.00	52.00	2.00
The establishment,		40.21	57.44	2.35
Blankets,	one hundred pounds	50.00	37.50	12.50
The establishment,		33.96	56.54	9.50
Cassimeres,	one yard	7.86	82.86	9.28
The establishment,		21.15	63.76	15.09
Cassimeres,	one yard	63.64	36.36	—
The establishment,		32.64	65.64	1.72
Cassimeres,	one yard	20.00	71.43	8.57
The establishment,		15.52	75.48	9.00

WOOLLEN GOODS—Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Cassimeres,	one yard	19.01	80.99	-
The establishment,		21.94	75.38	2.68
Cassimeres,	one yard	19.05	58.09	22.86
The establishment,		28.45	68.78	2.77
Cassimeres, fancy	one yard	26.47	73.53	-
The establishment,		24.48	73.20	2.32
Cassimeres, fancy	one yard	27.38	52.38	20.24
The establishment,		27.36	64.64	8.00
Cassimeres, fancy	one yard	26.67	73.33	-
The establishment,		18.69	71.55	9.76
Cassimeres, fancy	one yard	20.78	54.55	24.67
The establishment,		19.43	74.86	5.71
Cassimeres, fancy	one yard	26.67	66.67	6.66
The establishment,		20.71	77.69	1.60
Cassimeres, fancy	one yard	20.60	69.70	9.70
The establishment,		20.89	76.12	2.99
Cassimeres, fancy	one yard	22.99	52.30	24.71
The establishment,		26.49	63.79	9.72
Cassimeres, fancy	one yard	24.70	64.71	10.59
The establishment,		31.87	64.21	3.92
Cassimeres, fancy	one yard	77.78	22.22	-
The establishment,		20.70	75.36	3.94
Cassimeres, fancy	one yard	22.60	68.49	8.91
The establishment,		23.99	72.98	3.03
Cassimeres, fancy	one yard	22.56	66.16	11.28
The establishment,		23.98	70.39	5.63
Cassimeres, fancy	one yard	21.05	78.95	-
The establishment,		18.45	73.95	7.60
Cassimeres, fancy	one hundred yards	18.00	75.00	7.00
The establishment,		18.10	77.05	4.85
Cassimeres, fancy	one hundred thousand yards	16.00	84.00	-
The establishment,		18.46	80.16	1.38
Cassimeres, fancy	two hundred and thirty-five thousand yards	34.20	59.72	6.08
The establishment,		29.91	64.22	5.87
Cassimeres, union	one yard	47.06	52.94	-
The establishment,		14.37	83.46	2.17
Cassimeres, union	one yard	26.67	73.33	-
The establishment,		19.13	78.35	2.52
Cassimeres, union	one hundred yards	34.29	65.71	-
The establishment,		34.18	54.74	11.08
Cassimeres, union	one thousand yards	22.86	74.28	2.86
The establishment,		27.73	72.27	-
Cassimeres, union	one thousand yards	23.53	76.47	-
The establishment,		23.86	76.14	-
Cassimeres, union	one yard	20.00	80.00	-
The establishment,		19.90	70.68	9.42
Cloth, beaver	one yard	73.85	26.15	-
The establishment,		28.81	69.18	2.01
Cloth, indigo-blue	one thousand yards	23.20	57.68	19.12
The establishment,		27.06	67.08	5.86
Cloth, woollen	one yard	26.70	73.30	-
The establishment,		25.78	70.03	4.19
Cloth, woollen	one yard	31.40	55.62	12.98
The establishment,		29.44	60.60	9.96
Cloth, woollen	one hundred yards	14.89	43.75	41.36
The establishment,		25.01	71.90	3.09
Dress goods,	one yard	28.13	56.25	15.62
The establishment,		14.57	84.45	0.98

WOOLLEN GOODS — Continued.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Dress goods,	one yard	16.36	32.73	50.91
The establishment,		22.03	73.00	4.97
Flannel,	one yard	30.30	60.61	9.09
The establishment,		32.87	62.47	4.66
Flannel,	one yard	26.67	53.33	20.00
The establishment,		14.26	23.70	62.04
Flannel,	one yard	23.08	76.92	—
The establishment,		21.25	73.30	5.45
Flannel,	one hundred yards	17.48	79.67	2.85
The establishment,		19.49	74.84	5.67
Flannel,	one hundred pounds	22.33	67.96	9.71
The establishment,		17.77	69.44	12.79
Flannel, white	one yard	23.35	72.37	4.28
The establishment,		22.66	68.32	9.02
Flannel, wool	one hundred yards	38.89	61.11	—
The establishment,		23.40	75.76	0.84
Linings, felt	one yard	19.23	80.77	—
The establishment,		35.77	57.80	6.43
Sacking, ladies'	one yard	35.94	43.75	20.31
The establishment,		19.49	77.21	3.30
Satinet,	one yard	41.18	58.82	—
The establishment,		37.55	52.64	9.81
Satinet,	one yard	26.47	61.77	11.76
The establishment,		28.25	63.74	8.01
Satinet,	one hundred yards	25.00	66.67	8.33
The establishment,		28.13	58.10	13.77
Satinet,	one hundred yards	23.53	58.82	17.65
The establishment,		39.22	56.02	4.76
Satinet,	one hundred yards	41.20	42.00	16.80
The establishment,		42.84	52.47	4.69
Satinet,	one hundred yards	25.00	60.00	15.00
The establishment,		19.29	76.46	4.25
Satinet,	one hundred yards	30.77	61.54	7.69
The establishment,		27.42	55.43	17.15
Satinet,	one thousand yards	27.78	66.67	5.55
The establishment,		20.94	77.95	1.11
Satinet,	one thousand yards	28.57	57.14	14.29
The establishment,		33.97	52.11	13.92
Satinet,	three hundred and fifty thousand yards	35.35	54.36	10.29
The establishment,		35.35	54.36	10.29
Satinet,	one thousand yards	30.13	51.28	18.59
The establishment,		34.16	53.76	12.08
Satinet,	fifty-five hundred yards	32.47	43.64	23.89
The establishment,		27.85	60.62	11.53
Satinet,	ten thousand yards	25.00	62.50	12.50
The establishment,		27.52	62.98	9.50
Satinet,	one million, one hundred and sixty-five thousand, two hun- dred and sixty-eight yards	18.50	63.68	17.82
The establishment,		20.55	77.35	2.10
Satinet and flannel,	four hundred and seventy- seven thousand, five hun- dred yards	19.51	76.65	3.84
The establishment,		20.08	78.88	1.04
Shoddy,	three hundred thousand pounds	14.28	69.05	16.67
The establishment,		14.50	80.71	4.79
Shoddy, wool	one pound	11.11	88.89	—
The establishment,		9.69	81.01	9.30

WOOLLEN GOODS—Concluded.

NAMES OF ARTICLES, ETC.	Quantities	PERCENTAGES OF TOTAL COST OF PRODUCTION PAID FOR—		
		Wages	Raw Ma- terials	Expenses (not specified)
Tricot,	one hundred yards . . .	26.92	61.54	11.54
The establishment,		26.95	63.76	9.29
Woollen goods,	ninety-four thousand yards .	23.95	61.94	14.11
The establishment,		23.57	67.77	8.66
Yarn,	one pound	24.00	52.00	24.00
The establishment,		19.03	76.88	4.09
Yarn, carpet	one hundred pounds . . .	18.01	81.99	—
The establishment,		12.50	79.99	7.51
Yarn, hosiery	one hundred pounds . . .	19.08	80.92	—
The establishment,		18.09	79.96	1.95
Yarn, woollen	two hundred pounds . . .	14.29	85.71	—
The establishment,		16.90	79.79	3.31
Yarn, worsted	one hundred pounds . . .	20.53	79.47	—
The establishment,		16.43	82.58	0.99

WORSTED GOODS.

Braid, skirt	one thousand dozen . . .	41.67	58.33	—
The establishment,		23.24	66.24	10.52
Cloth, worsted	one yard	30.00	70.00	—
The establishment,		6.56	92.85	0.59
Dress goods, worsted	one piece of fifty-five yards .	20.71	43.75	35.54
The establishment,		30.25	58.61	11.14
Noils, camel's-hair	one hundred pounds . . .	18.18	68.18	13.64
The establishment,		7.12	90.57	2.31
Snittings, worsted	one yard	31.11	68.89	—
The establishment,		22.67	66.73	10.60
Yarn,	one pound	33.33	66.67	—
The establishment,		28.30	67.55	4.15
Yarn, worsted	one pound	15.38	53.85	30.77
The establishment,		23.13	70.75	6.12
Yarn, worsted	one hundred pounds . . .	25.51	74.49	—
The establishment,		15.53	83.65	0.82

ANALYSIS.

The information contained in the foregoing tables is useful in two ways. First, it is valuable in its detail. It relates to 1,615 different examples of articles produced in the classified industries of the Commonwealth, with the cost of the labor directly involved in production separated from the other elements of cost, and this information is presented in such form as to be available in any discussion relative to the particular articles selected. In many cases several instances of the same article appear, derived from different establishments, so that comparisons may be made.

If we take an article selected at random, for instance "Print Cloth," presented upon page 28, we find that, in a case in-

volving 10,000 pounds, the wage cost amounted to 31.16 per cent of the total cost of production, the remaining percentage being charged to raw materials. Upon page 29 other instances of the same article are given, the wage cost varying from 20 per cent of the total cost of production, in one instance, upon the basis of a single yard, to 39.89 per cent, in another instance, based upon 1,000 pounds. If we desire to arrive at a percentage of wage cost of the total cost of production in the establishments making this article, we find, from the same table, the percentage varying from 21.45 per cent to 63.17 per cent. If we take "Balmoral Boots (button, calf, men's)," presented upon page 7, we find that the percentage of labor cost of total cost is 25, and the percentages of cost of raw materials and of expenses not specified, 69.90 and 5.10 respectively. These percentages do not indicate conditions materially different from those prevailing in the establishment, in which the cost of wages was 27.10 per cent, the cost of raw materials 68.61 per cent, and the cost of expenses not specified 4.29 per cent of the total cost of production. Upon page 8 three instances of "Button Boots (kid, children's)" are given, the range as to labor cost being from 33.23 per cent to 42.04 per cent of the total cost of production, and the cost of raw materials ranging from 52.78 per cent to 66.77 per cent of the total cost of production. In the establishments, the range of wage cost was from 29.26 per cent to 46.06 per cent, and for raw materials, from 50.90 per cent to 69.76 per cent of the total cost of production. It is not necessary to enter upon an analysis of the various instances presented in detail, as the manner in which the tables may be used is sufficiently pointed out in the examples cited.

Wherever it was possible to fix the quality of the article definitely it has been done; but in many cases absolute definiteness was impracticable. In all cases, however, the facts are given in detail rather than by consolidations or averages. An example in point occurs upon pages 12 and 13, where are presented 35 instances of "Shoes," in which the particular kind or quality is not specified. In these the range of labor cost varies from 15.15 per cent of the total cost of production, in a single instance, based upon 600 cases, to 62.93 per cent, also in a single instance, based upon 200 cases. While

the range between the extremes is wide, a large number of instances show no such variation, but fall between 30.43 per cent and 40.35 per cent. The statistics, when thus presented in detail, indicate the range of labor cost involved in the production of shoes of, possibly, different qualities, and aptly illustrate a point emphasized in other reports of this Bureau, namely, the futility of relying upon averages based upon a wide range of units, unless the range also is carefully considered. They show, too, that no single percentage can be determined, which shall fully represent the labor cost involved in the production of shoes in general, or of any other product in which wide variations of quality appear.

In other cases presented in the tables, however, the quality is more definitely fixed, and the quantity from which the data are derived is so large as to render the results exceedingly valuable. Such a case appears on page 30, the article being "Cotton Sheeting." In this example 5,861,296 pounds afford a basis upon which the labor cost is computed to be 18.89 per cent of the total cost of production. The percentage of cost of raw material is 61.89, and the percentage charged to expenses not specified, 19.22. Again, on page 52, the article being "Cotton Warp Shaker Flannel," 100,000 yards enter into a computation in which the labor cost is found to be 19.35 per cent, the cost of raw material 18.97 per cent, and the cost of expenses not specified 61.68 per cent of the total cost of production.

Even when the quality is not specified and presumably varies, the numerous instances and large quantities entering into the computations render the results significant. As an example, take the article "Satinet," classified under the head of Woollen Goods, on page 65. Fourteen instances are given. In one the production of 350,000 yards is used as the basis, the labor cost being 35.35 per cent, and the cost of raw materials 54.36 per cent of the total cost of production. In another instance the product of 1,165,268 yards shows the labor cost to be 18.50 per cent of the total cost of production. One grade of goods was, no doubt, better than the other, yet the facts brought out convey a clearer idea of the truth than would appear from an average based upon the two instances. The range of labor cost in the production of

"Satinet" is shown to be from 18.50 per cent of the total cost of production, in the case just cited, to 41.18 per cent, in a single instance, in which the computation is reduced to the basis of a single yard. Although these percentages, like those relating to the production of shoes, previously referred to, indicate a wide variation in labor cost, it will be found that, in most of the instances, the wage cost does not fall below 25 per cent, nor rise above 33.33 per cent, of the total cost of production.

In a number of cases, particularly in the boot and shoe and clothing industries, the percentage of wage cost prevailing in the establishment is seen to be very low as compared with other establishments in the same industry. One such instance appears upon page 10, the percentage of wage cost for the establishment being 3.65. Again, upon page 12, in one instance the percentage of wage cost for the establishment is returned as 8.66. Three other instances appear upon page 25, the percentages of wage cost in different establishments being 6.42, 5.57, and 7.11, respectively.

These small percentages of wage cost result from the fact that a part of the industrial process involved in the product of such establishments is performed outside, either by contractors, as in the clothing industry, or in stitching shops, as in Boots and Shoes, the wage cost not appearing upon the rolls of the establishments. In fact it may be said, that the raw material in such cases, or, more strictly, the stock used, has been enhanced in cost by being advanced in manufacture before it enters into production in the particular establishment turning out the completed article, and therefore the wage cost within the establishment is reduced in proportion as the cost of raw material or stock used is increased. Without this explanation the percentage of wage cost in these instances would seem abnormally small.

The following table presents, for each industry, the number of establishments included in the investigation, the number in which the wage cost for the selected article presented in the tables was higher than the percentage of wage cost in the establishment as a whole, and, also, the number of establishments in which the percentage of wage cost in the establishment was higher than the percentage of wage cost of the selected article.

Comparative Wage Cost for Articles and Establishments: By Industries.

INDUSTRIES.	Total Number of Estab- lishments Report- ing the Relation of Wages to the Cost of Pro- duction	Respective Number of Estab- lishments in which the Percent- age of Wage Cost of the Total Cost of Production was Highest—		Remarks
		For the Ar- ticle	In the Es- tablish- ment	
Agricultural implements, .	5	1	4	
Arms and ammunition, . .	6	4	2	
Artificial teeth and dental work,	3	1	—	Two establishments, wage cost not given.
Artisans' tools,	26	13	13	
Boots and shoes,	287	177	107	Two establishments, wage cost not given. One establishment, wage cost for article and establishment the same.
Boxes (paper and wooden), .	49	19	29	One establishment, wage cost for article and establishment the same.
Brick, tiles, and sewer pipe, .	33	17	12	Four establishments, wage cost for article and establishment the same.
Brooms, brushes, and mops, .	15	7	8	
Building,	38	20	18	
Burial cases, caskets, coffins, etc.,	4	1	3	
Buttons and dress trimmings, .	7	4	3	
Carpetings,	10	7	3	
Carriages and wagons, . .	41	15	25	One establishment, wage cost not given.
Cement, kaolin, lime, and plaster,	6	3	2	One establishment, wage cost for article and establishment the same.
Chemical preparations (com- pounded),	1	—	1	
Clocks and watches,	1	—	1	
Clothing,	62	37	25	
Concrete walks, paving, etc., .	2	—	2	
Cooking, lighting, and heating apparatus,	16	8	7	One establishment, wage cost for article and establishment the same.
Cordage and twine,	11	4	7	
Cotton goods,	78	35	43	
Cotton, woollen, and other tex- tiles,	1	—	1	
Crayons, pencils, crucibles, etc.,	2	1	1	
Drugs and medicines, . . .	12	2	4	Five establishments, wage cost not given. One establishment, wage cost for article and establishment the same.
Dyestuffs,	2	—	2	
Earthen, plaster, and stone ware,	5	3	2	
Electrical apparatus and appli- ances,	2	1	1	
Electroplating,	1	1	—	
Emery and sand paper and cloth, etc.,	4	3	1	
Fancy articles,	1	—	1	

Comparative Wage Cost for Articles and Establishments: By Industries
— Continued.

INDUSTRIES.	Total Number of Estab- lishments Report- ing the Relation of Wages to the Cost of Pro- duction	Respective Number of Estab- lishments in which the Percent- age of Wage Cost of the Total Cost of Production was Highest —		Remarks
		For the Ar- ticle	In the Es- tablish- ment	
Fertilizers,	4	3	1	
Flax, hemp, and jute goods, . .	3	2	1	
Food preparations,	74	29	39	Three establishments, wage cost not given. Three establishments, wage cost for article and establishment the same.
Furniture,	53	20	32	One establishment, wage cost for article and establishment the same.
Glass,	1	-	1	
Glue, isinglass, and starch, . .	7	2	3	Two establishments, wage cost for article and establishment the same.
Hair work (animal and human), .	2	1	1	
Hosiery and knit goods, . . .	15	9	6	
Ink, mucilage, and paste, . . .	1	-	1	
Ivory, bone, shell, and horn goods, etc.,	9	6	3	
Leather,	65	47	17	One establishment, wage cost not given.
Linen,	1	1	-	
Liquors and beverages (not spirituous),	11	4	7	
Liquors: malt, distilled, and fermented,	21	9	11	One establishment, wage cost for article and establishment the same.
Lumber,	34	13	19	Two establishments, wage cost for article and establishment the same.
Machines and machinery, . . .	85	38	46	One establishment, wage cost for article and establishment the same.
Metals and metallic goods, . . .	137	57	77	One establishment, wage cost not given. Two establishments, wage cost for article and establishment the same.
Mixed textiles,	5	3	2	
Models and patterns,	1	-	1	
Musical instruments and materials,	17	13	4	
Oils and illuminating fluids, . .	1	1	-	
Paints, colors, and crude chemicals,	4	2	2	
Paper and paper goods,	58	20	29	
Perfumes, toilet articles, etc., .	1	-	1	
Photographs and photographic materials,	4	2	2	
Polishes and dressing,	6	4	2	
Printing, publishing, and book-binding,	1	1	-	
Railroad construction,	1	1	-	

Comparative Wage Cost for Articles and Establishments: By Industries
— Concluded.

INDUSTRIES.	Total Number of Estab- lishments Report- ing the Relation of Wages to the Cost of Pro- duction	Respective Number of Estab- lishments in which the Percent- age of Wage Cost of the Total Cost of Production was Highest—		Remarks
		For the Ar- ticle	In the Es- tablish- ment	
Rubber and elastic goods,	6	4	2	
Salt,	1	1	-	
Scientific instruments and ap- pliances,	5	2	2	One establishment, wage cost not given.
Silk and silk goods,	3	-	3	
Sporting and athletic goods,	4	1	3	
Stone,	25	9	16	
Straw and palm leaf goods,	5	5	-	
Tallow, candles, soap, and grease,	11	3	8	
Tobacco, snuff, and cigars,	58	18	36	Two establishments, wage cost not given. Two establishments, wage cost for article and establishment the same.
Toys and games (children's),	4	1	3	
Trunks and valises,	2	-	2	
Whips, lashes, and stocks,	8	6	1	One establishment, wage cost not given.
Wooden goods,	53	21	26	Three establishments, wage cost not given. Three establishments, wage cost for article and estab- lishment the same.
Woollen goods,	69	38	30	One establishment, wage cost for ar- ticle and establishment the same.
Worsted goods,	8	6	2	
ALL INDUSTRIES,	1,615	796	770	

This table enables the reader to determine at a glance the relation which the wage cost of the selected articles in each industry bears to the total wage cost of the establishments in which they were produced; or, in other words, to judge how far the articles selected represent the conditions prevailing in the establishments. For instance, in Agricultural Implements five establishments are considered, and in one of them the percentage of wage cost of total cost of production of the selected article ranges higher than the percentage of wage cost of the total cost of production in the establishment as a whole. On the other hand, in four establishments the percentages of wage cost of the total cost of production range higher than the per-

centages of wage cost of the particular article selected. In Cotton Goods 78 instances appear. Of these, 35 show the percentages of wage cost of the articles to be above the percentages ruling in the establishments. The other 43 comprise cases in which the percentage of wage cost in the establishment is greater than that for the selected article. In Artisans' Tools 26 cases are presented. In 13 of these the percentages of wage cost of the selected article range higher than the percentages of wage cost in the establishment, and in the other 13 the reverse is true. In this industry, therefore, and in some others, it is seen that no selection has been made of instances in which the percentages of wage cost of the articles all range either above or below the standard of wage cost prevailing in the establishments, the instances of the one kind exactly balancing those of the other. This uniformity is not maintained in every industry, but, on the whole, the balance is fairly preserved. In a few cases the percentages of wage cost for the selected article and in the establishment are identical; in others the percentage of wage cost for the establishment is not given. There are 49 such instances out of the grand total of 1,615 examples presented in All Industries. Of the others, 796 comprise articles having a higher percentage of wage cost than that prevailing in the establishment, and 770 show the percentage of wage cost in the establishment to be higher than that of the selected article. It is not necessary to follow the different industries in detail, as the points brought out are sufficiently apparent.

Secondly, the information contained in the tables is of value in determining, for each classified industry, a percentage which shall fairly represent the proportion of wage cost of total cost of production, not merely for the specified articles but for the industry as a whole. Of course such a percentage is necessarily an average. Its accuracy will be in proportion to the number of instances upon which it is based, and to the completeness with which it covers the total production in each industry.

Before proceeding to analyze the results of the tables in this direction, it is therefore proper to inquire how far the data contained in them may be accepted as representative.

The total amount of wages paid in the production of the

articles to which the tables relate was \$3,030,557, and the total cost of the specified quantities of these articles was \$11,614,359. The total wages paid in the establishments selected for consideration, in the Census year 1885, was \$33,549,098. The establishments selected, therefore, represent, as to wages paid, 22.76 per cent of the total amount of wages paid in all the manufacturing and mechanical industries in that year.

The following table presents, for each industry, the aggregate product in the Census year, and the aggregate product in the establishments included in this investigation, with percentages.

Percentages of Product Represented by Establishments Reporting Cost of Production: By Industries.

INDUSTRIES.	VALUE OF PRODUCT IN —		Percentages of Product Represented by Establishments Reporting Cost of Production
	All Establishments	Establishments Reporting Cost of Production	
Agricultural implements,	\$1,324,597	\$230,076	17.37
Arms and ammunition,	2,058,879	330,663	16.06
Artificial teeth and dental work,	651,857	4,150	0.64
Artisans' tools,	2,509,107	1,182,603	47.13
Awnings, tents, and decorations,	108,579	—	—
Boots and shoes,	114,729,533	35,137,219	30.63
Boxes (paper and wooden),	4,332,505	1,079,894	24.93
Brick, tiles, and sewer pipe,	1,541,879	375,279	21.34
Brooms, brushes, and mops,	1,365,373	131,641	9.64
Building,	39,801,245	913,586	2.30
Burial cases, caskets, coffins, etc., . . .	770,333	54,145	7.03
Buttons and dress trimmings,	1,016,153	349,913	34.44
Carpetings,	6,536,341	3,776,373	57.78
Carriages and wagons,	7,277,933	802,691	11.03
Cement, kaolin, lime, and plaster, . . .	239,875	110,695	46.15
Charcoal and kindlers,	11,480	—	—
Chemical preparations (compounded), . .	1,165,134	4,000	0.34
Clocks and watches,	3,325,199	39,600	1.19
Clothing,	32,659,837	4,201,758	12.87
Concrete walks, paving, etc.,	150,798	7,390	4.90
Cooking, lighting, and heating apparatus, .	3,131,582	985,251	31.46
Cordage and twine,	5,077,261	2,112,590	41.61
Corks, bungs, and taps,	144,000	—	—
Cotton goods,	61,425,097	29,997,242	48.84
Cotton, woollen, and other textiles, . .	2,394,583	792,848	33.11
Crayons, pencils, crucibles, etc., . . .	104,490	15,480	14.81
Drugs and medicines,	4,722,838	52,912	1.12
Dyestuffs,	789,973	120,370	15.24
Earthen, plaster, and stone ware, . . .	433,213	149,240	34.45
Electrical apparatus and appliances, . .	1,397,737	188,649	13.50

Percentages of Product Represented by Establishments Reporting Cost of Production: By Industries—Continued.

INDUSTRIES.	VALUE OF PRODUCT IN—		Percentages of Product Represented by Establishments Reporting Cost of Production
	All Establishments	Establishments Reporting Cost of Production	
Electroplating,	\$214,507	\$5,000	2.33
Emery and sand paper and cloth, etc., . .	566,101	185,436	32.76
Fancy articles,	81,981	36,090	43.91
Fertilizers,	2,778,987	980,675	35.29
Fine arts and taxidermy,	42,124	—	—
Fireworks and matches,	91,210	—	—
Flax, hemp, and jute goods,	1,493,623	384,665	25.75
Food preparations,	80,488,329	2,776,378	3.45
Furniture,	12,716,908	1,815,729	14.28
Gas and residual products,	4,573,962	—	—
Glass,	1,091,949	10,091	0.92
Glue, isinglass, and starch,	1,306,331	463,978	35.52
Hair work (animal and human),	442,063	294,450	66.61
Hose: rubber, linen, etc.,	790,480	—	—
Hosiery and knit goods,	4,196,522	2,915,072	69.46
Ink, mucilage, and paste,	131,626	19,512	14.82
Ivory, bone, shell, and horn goods, etc.,	1,623,413	1,042,064	63.99
Jewelry burnishing and lapidary work, .	47,500	—	—
Leather,	28,008,851	5,055,418	18.05
Linen,	1,068,489	306,389	28.67
Liquors and beverages (not spirituous), .	641,216	97,698	15.24
Liquors: malt, distilled, and fermented,	7,881,240	963,765	12.23
Lumber,	3,627,345	269,243	7.42
Machines and machinery,	20,365,970	3,696,128	18.15
Metals and metallic goods,	41,332,005	6,981,798	16.89
Mixed textiles,	1,323,861	653,528	49.37
Models and patterns,	258,242	10,000	3.87
Musical instruments and materials, . .	6,145,008	1,326,049	21.58
Oils and illuminating fluids,	2,294,931	100,000	4.36
Paints, colors, and crude chemicals, . .	763,034	211,747	27.75
Paper and paper goods,	21,223,626	11,033,635	51.99
Perfumes, toilet articles, etc.,	409,801	5,289	1.29
Photographs and photographic materials, .	936,165	93,023	9.94
Polishes and dressing,	1,788,412	250,730	14.02
Printing, publishing, and bookbinding, .	16,552,475	88,030	0.53
Print works, dye works, and bleacheries,	15,880,843	—	—
Railroad construction,	2,158,224	30,000	1.39
Rubber and elastic goods,	12,638,741	2,995,786	23.70
Salt,	46,890	1,430	3.05
Scientific instruments and appliances, . .	1,227,683	75,677	6.16
Shipbuilding,	2,107,986	—	—
Silk and silk goods,	3,501,240	500,627	14.30
Sporting and athletic goods,	1,079,966	59,350	5.50
Stone,	5,508,569	729,487	13.24
Straw and palm leaf goods,	6,265,287	566,967	9.05
Tallow, candles, soap, and grease, . . .	3,474,890	727,493	20.94
Tobacco, snuff, and cigars,	2,813,084	1,119,803	39.81

Percentages of Product Represented by Establishments Reporting Cost of Production: By Industries—Concluded.

INDUSTRIES.	VALUE OF PRODUCT IN—		Percentages of Product Represented by Establishments Reporting Cost of Production
	All Establishments	Establishments Reporting Cost of Production	
Toys and games (children's),	\$316,895	\$184,207	58.13
Trunks and valises,	346,720	86,288	24.89
Whips, lashes, and stocks,	1,052,401	119,175	11.32
Wooden goods,	4,767,726	1,032,018	21.65
Woollen goods,	31,748,278	12,318,433	38.80
Worsted goods,	11,198,148	2,068,094	18.47
ALL INDUSTRIES,	\$674,634,269	\$147,832,513	21.91

The aggregates for All Industries given in this table show that, while the value of product in all the establishments engaged in manufacturing and mechanical industries in 1885 was \$674,634,269, the value of product in the establishments for which the percentages of wage cost are presented in this report was \$147,832,513, or 21.91 per cent of the total value of product returned in the Census year. This percentage of aggregate product, covered for all industries, is, for many of the industries individually, far too low. In Boots and Shoes the wage cost is given for a product amounting to 30.63 per cent of that shown in the Census. In Carpetings, 57.78 per cent; in Cotton Goods, 48.84 per cent; in Cotton, Woollen, and Other Textiles, 33.11 per cent; in Hosiery and Knit Goods, 69.46 per cent; in Mixed Textiles, 49.37 per cent; in Paper and Paper Goods, 51.99 per cent; and in Woollen Goods, 38.80 per cent of the total product indicated by the Census returns is covered. For these eight industries, which turned out 36.11 per cent of the total value of goods made in the Census year, the percentage of wage cost is given in the tables for an aggregate product amounting to 39.67 per cent of the total value of goods made in them, as shown by the Census. If to this group we add the following: Artisans' Tools, Buttons and Dress Trimmings, Cooking, Lighting, and Heating Apparatus, Cordage and Twine, Earthen, Plaster, and Stone Ware, Emery and Sand Paper and Cloth, etc., Fancy Articles, Glue, Isinglass, and Starch, Hair Work (Animal and Human), Ivory, Bone, Shell, and Horn Goods, etc., Tobacco, Snuff, and Cigars,

and Toys and Games (Children's), in each of which the returns are practically as complete as in the industries first named, we shall find that, in the 20 industries, which turned out 38.97 per cent of the total value of goods made in the Census year, the percentage of wage cost is given for an aggregate product amounting to two-fifths of that shown in the same industries in the Census.

In each of 22 industries the amount of product for which the percentage of wage cost is given is less than 10 per cent of the total product shown in the industry. While such returns are comparatively meagre, these industries combined had an aggregate product of but 24.99 per cent of the total value of goods made in all industries in the Census year. In this group are included several which may be classed as mechanical rather than manufacturing industries, such as Artificial Teeth and Dental Work, Building, Concrete Walks, Paving, etc., Lumber, Photographs and Photographic Materials, and Printing, Publishing, and Bookbinding. Nearly one-half of the total product derived from the 22 industries was turned out in Food Preparations, which includes butchering, meat packing, etc.

The returns, therefore, may be considered representative, and particularly so in the larger and more important industries.

The following table presents, for each industry, the total wage cost of production, the total cost of production, and the percentage of wage cost of total cost.

Percentages of Wage Cost of Total Cost of Production: By Industries.

INDUSTRIES.	Total Cost of Production	Wage Cost of Production	Percentages of Wage Cost of Total Cost of Production
Agricultural implements,	\$208,436	\$79,324	38.06
Arms and ammunition,	280,880	82,877	29.51
Artificial teeth and dental work,	2,010	520	*25.87
Artisans' tools,	881,946	430,975	48.87
Boots and shoes,	30,307,288	7,536,597	*24.87
Boxes (paper and wooden),	892,008	291,241	32.65
Brick, tiles, and sewer pipe,	293,451	166,414	56.71
Brooms, brushes, and mops,	118,983	39,655	33.33
Building,	715,647	241,567	33.76
Burial cases, caskets, coffins, etc.,	41,788	16,700	39.96
Buttons and dress trimmings,	297,678	81,318	27.32
Carpetings,	3,281,430	694,983	21.18

* Two establishments omitted.

Percentages of Wage Cost of Total Cost of Production: By Industries
— Continued.

INDUSTRIES.	Total Cost of Production	Wage Cost of Production	Percentages of Wage Cost of Total Cost of Production
Carriages and wagons,	\$640,706	\$294,174	†45.91
Cement, kaolin, lime, and plaster,	94,469	29,951	31.70
Chemical preparations (compounded),	3,259	302	9.27
Clocks and watches,	41,848	32,247	77.06
Clothing,	3,533,706	811,548	22.97
Concrete walks, paving, etc.,	6,375	4,540	71.22
Cooking, lighting, and heating apparatus,	730,496	374,291	51.24
Cordage and twine,	1,823,406	254,703	13.97
Cotton goods,	28,302,811	8,582,928	30.33
Cotton, woollen, and other textiles,	732,052	238,925	32.64
Crayons, pencils, crucibles, etc.,	10,966	6,000	54.71
Drugs and medicines,	24,833	5,697	||22.94
Dyestuffs,	72,505	14,937	20.60
Earthen, plaster, and stone ware,	97,620	64,513	66.09
Electrical apparatus and appliances,	132,682	60,509	45.60
Electroplating,	2,909	800	27.50
Emery and sand paper and cloth, etc.,	132,283	35,322	26.70
Fancy articles,	18,535	10,500	56.65
Fertilizers,	637,358	58,900	8.57
Flax, hemp, and jute goods,	289,607	64,124	22.14
Food preparations,	2,339,957	291,085	†12.44
Furniture,	1,529,074	566,236	37.03
Glass,	7,437	4,593	61.76
Glue, isinglass, and starch,	430,507	64,461	14.97
Hair work (animal and human),	283,248	34,535	12.19
Hosiery and knit goods,	2,430,781	769,429	31.65
Ink, mucilage, and paste,	14,834	3,644	24.57
Ivory, bone, shell, and horn goods, etc.,	665,267	147,609	22.19
Leather,	4,675,586	672,117	†14.38
Linen,	304,824	99,700	32.71
Liquors and beverages (not spirituous),	60,135	21,492	35.74
Liquors: malt, distilled, and fermented,	654,656	88,133	13.46
Lumber,	220,960	55,185	24.98
Machines and machinery,	2,754,123	1,285,690	46.68
Metals and metallic goods,	5,503,500	1,977,586	†35.93
Mixed textiles,	646,764	101,986	15.77
Models and patterns,	3,141	1,932	61.51
Musical instruments and materials,	972,944	389,927	40.08
Oils and illuminating fluids,	97,351	5,700	5.92
Paints, colors, and crude chemicals,	163,741	27,180	16.60
Paper and paper goods,	9,487,326	1,740,401	18.34
Perfumes, toilet articles, etc.,	3,343	915	27.37
Photographs and photographic materials,	63,060	25,851	40.99
Polishes and dressing,	197,048	21,869	11.10
Printing, publishing, and bookbinding,	66,827	26,030	38.95
Railroad construction,	20,071	10,000	49.82
Rubber and elastic goods,	2,197,152	554,251	25.23
Salt,	628	328	52.23

† One establishment omitted. || Five establishments omitted. ‡ Three establishments omitted.

Percentages of Wage Cost of Total Cost of Production: By Industries
— Concluded.

INDUSTRIES.	Total Cost of Production	Wage Cost of Production	Percentages of Wage Cost of Total Cost of Production
Scientific instruments and appliances, . . .	\$51,178	\$23,851	†46.60
Silk and silk goods,	478,186	145,611	30.45
Sporting and athletic goods,	32,772	13,065	39.87
Stone,	501,949	283,441	56.47
Straw and palm leaf goods,	482,138	108,802	22.57
Tallow, candles, soap, and grease,	674,786	60,749	9.00
Tobacco, snuff, and cigars,	980,431	339,814	*34.66
Toys and games (children's),	154,294	79,837	51.74
Trunks and valises,	69,480	15,056	21.67
Whips, lashes, and stocks,	99,614	23,083	†23.17
Wooden goods,	759,419	259,506	†34.17
Woollen goods,	0,157,270	2,229,314	21.95
Worsted goods,	1,768,208	371,962	21.04
ALL INDUSTRIES,	\$126,703,981	\$33,549,098	26.48

† One establishment omitted. * Two establishments omitted. ‡ Three establishments omitted.

Analyzing the preceding table, we find the higher percentages of wage cost of total cost of production in the following classified industries, the percentage, in each case, being above 50. Brick, Tiles, and Sewer Pipe, 56.71 per cent; Clocks and Watches, 77.06 per cent; Concrete Walks, Paving, etc., 71.22 per cent; Cooking, Lighting, and Heating Apparatus, 51.24 per cent; Crayons, Pencils, Crucibles, etc., 54.71 per cent; Earthen, Plaster, and Stone Ware, 66.09 per cent; Fancy Articles, 56.65 per cent; Glass, 61.76 per cent; Models and Patterns, 61.51 per cent; Salt, 52.23 per cent; Stone, 56.47 per cent; and Toys and Games (Children's), 51.74 per cent. These industries are principally those in which the stock used, or, in other words, the raw material, is a crude substance of relatively low cost, such as clay, certain kinds of earth, sand, rough stone, etc., or they are industries in which a high degree of skill is required, as in Clocks and Watches.

The lower percentages of wage cost are found in the following industries, the percentage, in each case, being below 20. Chemical Preparations (Compounded), 9.27 per cent; Cordage and Twine, 13.97 per cent; Fertilizers, 8.57 per cent; Food Preparations, 12.44 per cent; Glue, Isinglass, and Starch, 14.97 per cent; Hair Work (Animal and Human),

12.19 per cent; Leather, 14.38 per cent; Liquors: Malt, Distilled, and Fermented, 13.46 per cent; Mixed Textiles, 15.77 per cent; Oils and Illuminating Fluids, 5.92 per cent; Paints, Colors, and Crude Chemicals, 16.60 per cent; Paper and Paper Goods, 18.34 per cent; Polishes and Dressing, 11.10 per cent; and Tallow, Candles, Soap, and Grease, 9 per cent. These are industries in which, as a rule, the raw material or stock used is itself a manufactured article involving labor in its production, the value of such labor not appearing directly in the particular industry specified, such as Chemical Preparations (Compounded), Hair Work (Animal and Human), Leather, and Food Preparations, or they are industries in which only a small amount of labor is involved, such as Fertilizers, and Glue, Isinglass, and Starch.

In the following industries the proportion of wage cost of total cost of production ranges above 33.33 per cent but below 50 per cent, or, in other words, in these industries more than one-third but less than one-half of the total cost of production is due to the cost of labor: Agricultural Implements, 38.06 per cent; Artisans' Tools, 48.87 per cent; Building, 33.76 per cent; Burial Cases, Caskets, Coffins, etc., 39.96 per cent; Carriages and Wagons, 45.91 per cent; Electrical Apparatus and Appliances, 45.60 per cent; Furniture, 37.03 per cent; Machines and Machinery, 46.68 per cent; Metals and Metallic Goods, 35.93 per cent; Liquors and Beverages (Not Spirituous), 35.74 per cent; Musical Instruments and Materials, 40.08 per cent; Photographs and Photographic Materials, 40.99 per cent; Printing, Publishing, and Bookbinding, 38.95 per cent; Railroad Construction, 49.82 per cent; Scientific Instruments and Appliances, 46.60 per cent; Sporting and Athletic Goods, 39.87 per cent; Tobacco, Snuff, and Cigars, 34.66 per cent; Wooden Goods, 34.17 per cent. These are chiefly industries in which considerable technical skill is expended upon materials or articles of stock which have been previously subjected to industrial processes.

In the following industries the percentage of wage cost is above 20 but does not exceed 33.33; that is, at least one-fifth but not more than one-third of the cost of production is due to the cost of labor: Arms and Ammunition, 29.51 per cent; Artificial Teeth and Dental Work, 25.87 per cent; Boots and

Shoes, 24.87 per cent; Brooms, Brushes, and Mops, 33.33 per cent; Boxes (Paper and Wooden), 32.65 per cent; Buttons and Dress Trimmings, 27.32 per cent; Carpetings, 21.18 per cent; Cement, Kaolin, Lime, and Plaster, 31.70 per cent; Clothing, 22.97 per cent; Cotton Goods, 30.33 per cent; Cotton, Woollen, and Other Textiles, 32.64 per cent; Drugs and Medicines, 22.94 per cent; Dyestuffs, 20.60 per cent; Electroplating, 27.50 per cent; Emery and Sand Paper and Cloth, etc., 26.70 per cent; Flax, Hemp, and Jute Goods, 22.14 per cent; Hosiery and Knit Goods, 31.65 per cent; Ink, Mucilage, and Paste, 24.57 per cent; Ivory, Bone, Shell, and Horn Goods, etc., 22.19 per cent; Linen, 32.71 per cent; Lumber, 24.98 per cent; Perfumes, Toilet Articles, etc., 27.37 per cent; Rubber and Elastic Goods, 25.23 per cent; Silk and Silk Goods, 30.45 per cent; Straw and Palm Leaf Goods, 22.57 per cent; Trunks and Valises, 21.67 per cent; Whips, Lashes, and Stocks, 23.17 per cent; Woollen Goods, 21.95 per cent; and Worsted Goods, 21.04 per cent. These include most of the great factory industries of the Commonwealth.

While these presentations are to be considered typical of the industries, as classified, it should be remembered that, for many of the articles included within each industry, the percentage of wage cost is considerably higher than the averages thus determined. For example, taking such an industry as Leather, in which the average percentage of wage cost runs as low as 14.38 per cent, if we turn to page 40 we shall find that the article "Kip Leather," represented by two instances, shows a wage cost ranging from 28.57 per cent to 30.51 per cent of the total cost of production. Again, the average percentage of wage cost in Cotton Goods is 30.33 per cent; but, upon page 28, certain cotton dress goods are presented, in the production of which the wage cost rises to 41.67 per cent of the total cost; and an example of "Gingham" appears, where the wage cost is 42.82 per cent of the total cost. So, too, in the paper and paper goods industry, the average percentage of wage cost for the industry is 18.34; but for certain grades of "Writing Paper," shown on page 55, the wage cost rises to 48.89 per cent of the total cost.

Instances of this sort might be multiplied indefinitely. Indeed, it would be easy to select certain standard articles in each industry from which might be derived an average percentage of wage cost considerably higher than that shown by this investigation. In every case, however, the range of percentages of wage cost prevailing in the establishments from which the industry averages are derived, and for certain selected articles made in these establishments, may be clearly seen from the tables. The industry average should be compared with this range, and the value of the presentation is enhanced by the fact that such a comparison is possible by means of data covering a comparatively wide field.

The following conclusions are summarized from the tables :

1. *In industries in which the total value of goods made, as shown in the latest Decennial Census, was \$15,991,687, or 2.37 per cent of the aggregate value of goods made in the manufacturing and mechanical industries of the Commonwealth, the average wage cost does not fall below 50 per cent, or one-half of the total cost of production, the range being from 51.24 per cent to 77.06 per cent. In these industries 14,819 males and 1,576 females were employed in the Census year 1885.*

2. *In industries in which the total value of goods made, as shown in the latest Decennial Census, was \$158,016,950, or 23.42 per cent of the aggregate value of goods made in the manufacturing and mechanical industries of the Commonwealth, the average wage cost does not rise above 20 per cent, or one-fifth of the total cost of production, the range being from 5.92 per cent to 18.34 per cent. In these industries 29,441 males and 7,864 females were employed in the Census year 1885.*

3. *In industries in which the total value of goods made, as shown in the latest Decennial Census, was \$163,817,382, or 24.28 per cent of the aggregate value of goods made in the manufacturing and mechanical industries of the Commonwealth, the proportion of average wage cost does not fall below 33.33 per cent nor rise above 50 per cent, or in other words, is more than one-third but less than one-half of the total cost of production. In these industries 98,631 males and 7,414 females were employed in the Census year 1885.*

4. *In industries in which the total value of goods made, as shown in the latest Decennial Census, was \$313,010,086, or 46.40 per cent of the aggregate value of goods made in the manufacturing and mechanical industries of the Commonwealth, the proportion of average wage cost does not fall below 20 per cent nor rise above 33.33 per cent, or in other words, is more than one-fifth but less than one-third of the total cost of production. In these industries 112,297 males and 95,508 females were employed in the Census year 1885.*

The above conclusions are presented in tabular form below.

CLASSIFICATION OF WAGE COST.	RANGE		PRODUCT		PERSONS EMPLOYED		
	High- est	Low- est	Value	Per- centage Repre- sented	Males	Females	Total
More than one-half,	77.06	51.24	\$15,991,687	2.37	14,819	1,576	16,395
Less than one-fifth,	18.34	5.92	158,016,950	23.42	29,441	7,864	37,305
Between one-third and one-half,	49.82	33.76	163,817,382	24.28	98,631	7,414	106,045
Between one-fifth and one-third,	33.33	20.60	313,010,086	46.40	112,297	95,508	207,805
TOTALS,	77.06	5.92	\$650,836,105	96.47	255,188	112,362	367,550

PART II.

MARKETS, TRANSPORTATION,
IMPORTS, EXPORTS,
AND COMPETITION.

PART II.

MARKETS, TRANSPORTATION, IMPORTS, EXPORTS, AND COMPETITION.

Experience has shown that the statistics of manufacturing industries grow more complex each decade, the collection of such statistics in 1885, for instance, requiring much more labor, and a greater technical knowledge than was needed in 1875. Not only was there a natural increase in business during the ten years, but many new subdivisions of employment had been made, and many changes in manufacturing processes adopted in order to place goods upon the market at the lowest price, and thus increase sales. The average manufacturer, working at first hand, is obliged to act according to a well-known business maxim which inculcates large sales and small profits. It is maintained by many that the manufacturer makes more money than he should, and in some industries the profits may be out of proportion to the capital, skill, and risk involved. At the same time it is undoubtedly true that many industries pay but a fair return for the money and ability employed, while in others the margin of profit is precarious, a bad year sometimes wiping out the surplus derived from several successful years and necessitating rigid economy in business in order to put the balance on the right side again.

Next to securing skilled labor and the most improved labor-saving machinery, the manufacturer gives his time and attention to the disposal of his goods. In fact, these two divisions of the business of manufacturing are of equal importance, and frequently one partner devotes his time to the mill, factory,

or workshop, while another watches the movement and development of trade, and is quick to force his goods into any new channels that may be opened, at the same time not neglecting the well-known highways for the distribution of his products.

The Census of 1885 showed that the manufacturing and mechanical industries of the Commonwealth were carried on by 28,294 partners and 42,731 stockholders, in all 71,025 persons, not necessarily different persons, because the same person may be a partner in one or more firms, or a stockholder in one or more corporations at the same time.

These 71,025 persons, representing 3.66 per cent of the population of the State, owned and carried on 23,431 establishments, either as individuals, firms, or corporations, and turned out a product during the Census year ending June 30, 1885, valued at \$674,634,269.

The fact is well established that the leading manufacturers of the Commonwealth distribute their product from the factory, although many make arrangements with commission merchants who dispose of the goods at first hand, and who, as a rule, have ample capital and can assure the mill a steady money supply for the purchase of raw materials and the demands of the pay roll. It is the manufacturers themselves, then, who are most interested in the questions of markets, the cost of transportation to those markets, the influence of importations upon trade, the development of foreign trade or exports, and the ever-present question of competition in the manufacture and sale of goods.

Our manufacturers have three outlets for their manufactured product. First, the local trade, confined to the city or town in which the business is located and the immediate vicinity. Second, the United States and Territories, forming what is comprehensively and popularly called the "home market." Third, the exports to foreign countries, usually called the foreign trade.

Relating either to markets, transportation, imports, exports, or to competition, the Bureau has special returns from 7,935 establishments which turn out an annual product worth \$464,319,253, an amount equal to 68.83 per cent of the total product of manufactures in the Census year 1885. The number of establishments considered, 7,935, is 33.87 per cent of

the whole number, 23,431, in operation in the Census year. The fact that about one-third of the establishments, turning out two-thirds of the annual production, made returns, indicates the comprehensiveness of the investigation and should secure for it, without question, the distinction of being thoroughly representative. The facts and opinions supplied in these returns must stand as representing the condition and sentiment of Massachusetts manufacturers upon the vital industrial questions under consideration.

It is not sufficient for our purpose to show conclusively, as we do, that the manufacturers who have replied to our inquiries thoroughly represent our industries as a whole. We wish to go still farther, and demonstrate that each industry is well represented, and that the parties who carry on the largest manufacturing establishments in the State have contributed from their business knowledge to furnish the material upon which this Part is based.

We first present a table, by industries, which shows the number of establishments making return, and the annual value of product. As the Census year supplies the only possible comparison, we reproduce the Census totals for establishments and value of goods made and work done, or product, and thus arrive at the number of establishments not making return, and the value of the unrepresented product. To complete the presentation, and render it available for popular use, we supply the respective percentages for establishments making return and for those not making return; and for the value of product represented by the returns, and the value of unrepresented product.

Represented and Unrepresented Establishments and Product: By Industries.

	INDUSTRIES.	ESTABLISHMENTS MAKING RETURN	
		Number	Value of Product
1	Agricultural implements,	23	\$1,034,220
2	Arms and ammunition,	23	1,479,581
3	Artificial teeth and dental work,	71	98,793
4	Artisans' tools,	91	2,344,979
5	Awnings, tents, and decorations,	5	27,505
6	Boots and shoes,	1,022	96,547,343
7	Boxes (paper and wooden),	128	2,703,062
8	Brick, tiles, and sewer pipe,	81	1,179,243
9	Brooms, brushes, and mops,	51	662,646
10	Building,	516	8,895,199
11	Burial cases, caskets, coffins, etc.,	27	696,807
12	Buttons and dress trimmings,	13	960,605
13	Carpetings,	28	5,985,805
14	Carriages and wagons,	340	4,696,791
15	Cement, kaolin, lime, and plaster,	15	216,255
16	Charcoal and kindlers,	2	770
17	Chemical preparations (compounded),	10	377,165
18	Clocks and watches,	9	2,400,127
19	Clothing,	415	14,134,276
20	Concrete walks, paving, etc.,	8	86,090
21	Cooking, lighting, and heating apparatus,	40	2,277,595
22	Cordage and twine,	36	4,906,433
23	Corks, bungs, and taps,	2	71,000
24	Cotton goods,	148	56,969,179
25	Cotton, woollen, and other textiles,	4	2,394,583
26	Crayons, pencils, crucibles, etc.,	7	104,490
27	Drugs and medicines,	225	3,043,182
28	Dyestuffs,	7	629,803
29	Earthen, plaster, and stone ware,	16	387,313
30	Electrical apparatus and appliances,	22	1,180,153
31	Electroplating,	9	76,800
32	Emery and sand paper and cloth, etc.,	12	554,601
33	Fancy articles,	5	21,396
34	Fertilizers,	14	2,719,387
35	Fine arts and taxidermy,	7	16,568
36	Fireworks and matches,	4	50,662
37	Flax, hemp, and jute goods,	7	1,483,223
38	Food preparations,	614	39,374,439
39	Furniture,	239	9,080,795
40	Gas and residual products,	45	1,799,840
41	Glass,	11	756,419
42	Glue, isinglass, and starch,	23	1,154,001
43	Hair work (animal and human),	11	339,080
44	Hose: rubber, linen, etc.,	2	781,480
45	Hosiery and knit goods,	38	3,938,285
46	Ink, mucilage, and paste,	9	104,118
47	Ivory, bone, shell, and horn goods, etc.,	31	1,461,609
48	Jewelry burnishing and lapidary work,	2	29,500

Represented and Unrepresented Establishments and Product: By Industries.

ESTABLISHMENTS NOT MAKING RETURN		AGGREGATES FOR THE CENSUS YEAR 1885		PERCENTAGES				
Number	Value of Product	Estab- lishments	Value of Product	Estab- lishments Making Return	Estab- lishments not Making Return	Value of Product Returned	Value of Product not Returned	
7	\$290,377	30	\$1,324,597	76.67	23.33	78.08	21.92	1
17	579,298	40	2,058,879	57.50	42.50	71.86	28.14	2
418	553,064	489	651,857	14.52	85.48	15.16	84.84	3
49	164,128	140	2,509,107	65.00	35.00	93.46	6.54	4
9	81,074	14	108,579	35.71	64.29	25.33	74.67	5
1,844	18,182,190	2,366	114,729,533	43.20	56.80	84.15	15.85	6
87	1,629,443	215	4,382,505	59.53	40.47	62.39	37.61	7
33	362,636	114	1,541,879	71.05	28.95	76.48	23.52	8
21	702,727	72	1,365,373	70.83	29.17	48.53	51.47	9
3,257	30,906,046	3,773	39,801,245	13.68	86.32	22.35	77.65	10
86	73,526	113	770,333	23.89	76.11	90.46	9.54	11
3	55,548	16	1,016,153	81.25	18.75	94.53	5.47	12
18	550,536	46	6,536,341	60.87	39.13	91.58	8.42	13
673	2,581,142	1,013	7,277,933	33.56	66.44	64.53	35.47	14
1	23,620	16	239,875	93.75	6.25	90.15	9.85	15
9	10,710	11	11,480	18.18	81.82	6.71	93.29	16
13	787,969	23	1,165,134	43.48	56.52	32.37	67.63	17
38	925,072	47	3,325,199	19.15	80.85	72.18	27.82	18
1,987	18,525,561	2,402	32,659,837	17.28	82.72	43.28	56.72	19
12	64,708	20	150,798	40.00	60.00	57.09	42.91	20
25	853,987	65	3,131,582	61.54	38.46	72.73	27.27	21
16	170,828	52	5,077,261	69.23	30.77	96.64	3.36	22
2	73,000	4	144,000	50.00	50.00	49.31	50.69	23
17	4,455,918	165	61,425,097	89.70	10.30	92.75	7.25	24
-	-	4	2,394,583	100.00	-	100.00	-	25
-	-	7	104,490	100.00	-	100.00	-	26
691	1,679,656	916	4,722,838	24.56	75.44	64.44	35.56	27
2	160,170	9	789,973	77.78	22.22	79.72	20.28	28
6	45,900	22	433,213	72.73	27.27	89.40	10.60	29
18	217,584	40	1,397,737	55.00	45.00	84.43	15.57	30
26	137,707	35	214,507	25.71	74.29	35.80	64.20	31
1	11,500	13	566,101	92.31	7.69	97.97	2.03	32
13	60,585	18	81,981	27.78	72.22	26.10	73.90	33
3	59,600	17	2,778,987	82.35	17.65	97.86	2.14	34
16	25,556	23	42,124	30.43	69.57	39.33	60.67	35
1	40,548	5	91,210	80.00	20.00	55.54	44.46	36
2	10,400	9	1,493,623	77.78	22.22	99.30	0.70	37
1,097	41,113,890	1,711	80,488,329	35.89	64.11	48.92	51.08	38
364	3,636,113	603	12,716,908	39.64	60.36	71.41	28.59	39
21	2,774,122	66	4,573,962	68.18	31.82	39.35	60.65	40
5	335,530	20	1,091,949	55.00	45.00	69.27	30.73	41
6	152,330	29	1,306,331	79.31	20.69	88.34	11.66	42
44	102,983	55	442,063	20.00	80.00	76.70	23.30	43
1	9,000	3	790,480	66.67	33.33	98.86	1.14	44
22	253,237	60	4,196,522	63.33	36.67	93.85	6.15	45
11	27,508	20	131,626	45.00	55.00	79.10	20.90	46
8	166,804	39	1,628,413	79.49	20.51	89.76	10.24	47
5	18,000	7	47,500	28.57	71.43	62.11	37.89	48

Represented and Unrepresented Establishments and Product: By Industries
— Concluded.

	INDUSTRIES.	ESTABLISHMENTS MAKING RETURN	
		Number	Value of Product
1	Leather,	379	\$23,878,366
2	Linen,	2	730,989
3	Liquors and beverages (not spirituous),	36	351,703
4	Liquors: malt, distilled, and fermented,	86	4,364,395
5	Lumber,	169	1,932,113
6	Machines and machinery,	388	16,569,022
7	Metals and metallic goods,	901	26,097,973
8	Mixed textiles,	11	1,288,688
9	Models and patterns,	24	165,458
10	Musical instruments and materials,	61	4,494,073
11	Oils and illuminating fluids,	15	1,544,108
12	Paints, colors, and crude chemicals,	14	698,498
13	Paper and paper goods,	115	18,992,739
14	Perfumes, toilet articles, etc.,	7	402,089
15	Photographs and photographic materials,	60	265,895
16	Polishes and dressing,	38	1,174,776
17	Printing, publishing, and bookbinding,	25	737,030
18	Print works, dye works, and bleacheries,	7	5,875,430
19	Railroad construction,	8	884,553
20	Rubber and elastic goods,	27	11,463,148
21	Salt,	2	2,030
22	Scientific instruments and appliances,	31	640,205
23	Shipbuilding,	7	1,063,462
24	Silk and silk goods,	10	2,846,580
25	Sporting and athletic goods,	15	308,166
26	Stone,	244	4,448,685
27	Straw and palm leaf goods,	26	5,430,173
28	Tallow, candles, soap, and grease,	91	2,780,109
29	Tobacco, snuff, and cigars,	169	1,908,107
30	Toys and games (children's),	10	308,407
31	Trunks and valises,	9	218,488
32	Whips, lashes, and stocks,	38	733,273
33	Wooden goods,	269	3,409,221
34	Woollen goods,	155	30,227,590
35	Worsted goods,	18	7,849,515
36	ALL INDUSTRIES,	7,935	\$464,319,253

Comparing the number of establishments making return with the number not making return, on the basis of industries, we find that in 51 industries the number making return exceeded the number not making return; in 31 industries the majority of the establishments did not make return, while in the case of one industry the number of establishments making and not making return is identical.

Represented and Unrepresented Establishments and Product: By Industries
— Concluded.

ESTABLISHMENTS NOT MAKING RETURN		AGGREGATES FOR THE CENSUS YEAR 1885		PERCENTAGES			
Number	Value of Product	Estab- lishments	Value of Product	Estab- lishments Making Return	Estab- lishments not Making Return	Value of Product Returned	Value of Product not Returned
320	\$4,130,485	699	\$28,008,851	54.22	45.78	85.25	14.75
1	337,500	3	1,068,489	66.67	33.33	68.41	31.59
27	289,513	63	641,216	57.14	42.86	54.85	45.15
132	3,516,845	218	7,881,240	39.45	60.55	55.38	44.62
297	1,694,232	466	3,627,345	36.27	63.73	53.29	46.71
234	3,796,948	622	20,365,970	62.38	37.62	81.36	18.64
1,831	15,234,032	2,732	41,332,005	32.98	67.02	63.14	36.86
2	35,173	13	1,323,861	84.62	15.38	97.34	2.66
27	92,784	51	258,242	47.06	52.94	64.07	35.93
32	1,650,935	93	6,145,008	65.59	34.41	73.13	26.87
13	750,823	28	2,294,931	53.57	46.43	67.28	32.72
8	64,536	22	763,034	63.64	36.36	91.54	8.46
33	2,230,887	148	21,223,626	77.70	22.30	89.49	10.51
5	7,712	10	409,801	70.00	30.00	98.12	1.88
181	670,270	241	936,165	24.90	75.10	28.40	71.60
27	613,636	65	1,788,412	58.46	41.54	65.69	34.31
687	15,815,445	712	16,552,475	3.51	96.49	4.45	95.55
89	10,005,413	96	15,880,843	7.29	92.71	37.00	63.00
7	1,273,671	15	2,158,224	53.33	46.67	40.99	59.01
14	1,175,593	41	12,638,741	65.85	34.15	90.70	9.30
3	44,860	5	46,890	40.00	60.00	4.33	95.67
34	587,478	65	1,227,683	47.69	52.31	52.15	47.85
272	1,044,524	279	2,107,986	2.51	97.49	50.45	49.55
2	654,660	12	3,501,240	83.33	16.67	81.30	18.70
12	771,800	27	1,079,966	55.56	44.44	28.53	71.47
134	1,059,884	378	5,508,569	64.55	35.45	80.76	19.24
21	835,114	47	6,265,287	55.32	44.68	86.67	13.33
64	694,781	155	3,474,800	58.71	41.29	80.01	19.99
133	904,977	302	2,813,084	55.96	44.04	67.83	32.17
5	8,488	15	316,895	66.67	33.33	97.32	2.68
16	128,232	25	346,720	36.00	64.00	63.02	36.98
22	319,128	60	1,052,401	63.33	36.67	69.68	30.32
265	1,358,505	534	4,767,726	50.37	49.63	71.51	28.49
34	1,520,688	189	31,748,278	82.01	17.99	95.21	4.79
5	3,348,633	23	11,198,148	78.26	21.74	70.10	29.90
15,496	\$210,315,016	23,431	\$674,634,269	33.87	66.13	68.83	31.17

If a comparison, on the basis of industries, is made as regards value of product, the result is as follows: in 64 industries the value of product of the establishments making return exceeded the value of product in the establishments not making return, while in 19 industries the value of product in the establishments making return was less than that in the establishments which made no return.

If we consider, separately, the 64 industries in which the value of product in the establishments making return exceeded the value of product in the establishments not making return, the following interesting facts are disclosed: in 7 industries the percentage of value of product represented, as compared with the total product in the Census year, was under 60 per cent; in 13 industries from 60 to 69 per cent; in 12 industries from 70 to 79 per cent; in 12 industries from 80 to 89 per cent; and in 20 industries 90 per cent and over, two of these industries reaching 100 per cent.

The industries making a return of less than 20 per cent of the value of product in the Census year 1885 are Artificial Teeth and Dental Work, Charcoal and Kindlers, Printing, Publishing, and Bookbinding, and Salt. All of these are comparatively unimportant industries excepting Printing, Publishing, and Bookbinding; but this industry, as a whole, is little interested in the questions under consideration.

We next present a comparison from a different point of view, viz., the average value of product per establishment, by industries, for the Census year 1885, and the contrasting average value of product for those establishments making return in relation to the points considered in this Part.

Comparative Average Value of Product per Establishment: By Industries.

INDUSTRIES.	TOTAL ESTABLISHMENTS			ESTABLISHMENTS MAKING RETURN		
	Num-ber	Total Value of Product	Average Value of Product	Num-ber	Total Value of Product	Average Value of Product
Agricultural implements, . . .	30	\$1,324,597	\$44,153	23	\$1,034,220	\$44,966
Arms and ammunition, . . .	40	2,058,879	51,472	23	1,479,581	64,330
Artificial teeth and dental work, . . .	489	651,857	1,333	71	98,793	1,391
Artisans' tools,	140	2,509,107	17,922	91	2,344,979	25,769
Awnings, tents, and decorations, . . .	14	108,579	7,756	5	27,505	5,501
Boots and shoes,	2,366	114,729,533	48,491	1,022	96,547,343	94,469
Boxes (paper and wooden), . . .	215	4,332,505	20,151	128	2,703,062	21,118
Brick, tiles, and sewer pipe, . . .	114	1,541,879	13,525	81	1,179,243	14,559
Brooms, brushes, and mops, . . .	72	1,365,373	18,964	51	662,646	12,993
Building,	3,773	39,801,245	10,549	516	8,895,199	17,239
Burial cases, caskets, coffins, etc., . . .	113	770,533	6,817	27	696,807	25,808
Buttons and dress trimmings, . . .	16	1,016,153	63,510	13	960,605	73,893
Carpetings,	46	6,536,341	142,094	28	5,985,805	213,779
Carriages and wagons, . . .	1,013	7,277,933	7,185	340	4,696,791	13,814
Cement, kaolin, lime, and plaster, . . .	16	239,875	14,992	15	216,255	14,417
Charcoal and kindlers, . . .	11	11,480	1,044	2	770	385

Comparative Average Value of Product per Establishment: By Industries
—Continued.

INDUSTRIES.	TOTAL ESTABLISHMENTS			ESTABLISHMENTS MAKING RETURN		
	Number	Total Value of Product	Average Value of Product	Number	Total Value of Product	Average Value of Product
Chemical preparations (compounded),	23	\$1,165,134	\$50,658	10	\$377,165	\$37,717
Clocks and watches,	47	3,325,199	70,749	9	2,400,127	266,681
Clothing,	2,402	32,659,837	13,597	415	14,134,276	34,058
Concrete walks, paving, etc., . .	20	150,798	7,540	8	86,090	10,761
Cooking, lighting, and heating apparatus,	65	3,131,582	48,178	40	2,277,595	56,940
Cordage and twine,	52	5,077,261	97,640	36	4,906,433	136,290
Corks, bungs, and taps,	4	144,000	36,000	2	71,000	35,500
Cotton goods,	165	61,425,097	372,273	148	56,960,179	384,927
Cotton, woollen, and other textiles,	4	2,394,583	598,646	4	2,394,583	598,646
Crayons, pencils, crucibles, etc., .	7	104,490	14,927	7	104,490	14,927
Drugs and medicines,	916	4,722,838	5,156	225	3,043,182	13,525
Dyestuffs,	9	789,973	87,775	7	629,803	89,972
Earthen, plaster, and stone ware,	22	433,213	19,692	16	387,313	24,207
Electrical apparatus and appliances,	40	1,397,737	34,943	22	1,180,153	53,643
Electroplating,	35	214,507	6,129	9	76,800	8,533
Emery and sand paper and cloth, etc.,	13	566,101	43,546	12	554,601	46,217
Fancy articles,	18	81,981	4,555	5	21,396	4,279
Fertilizers,	17	2,778,987	163,470	14	2,719,837	194,242
Fine arts and taxidermy,	23	42,124	1,831	7	16,568	2,367
Fireworks and matches,	5	91,210	18,242	4	50,662	12,666
Flax, hemp, and jute goods, . . .	9	1,493,623	165,958	7	1,483,223	211,859
Food preparations,	1,711	80,488,329	47,042	614	39,374,439	64,128
Furniture,	603	12,716,908	21,089	239	9,080,795	37,995
Gas and residual products,	66	4,573,962	69,302	45	1,799,840	39,996
Glass,	20	1,091,949	54,597	11	756,419	68,765
Glue, isinglass, and starch, . . .	29	1,306,331	45,046	23	1,154,001	50,174
Hair work (animal and human), . .	55	442,063	8,038	11	339,080	30,825
Hose: rubber, linen, etc.,	3	790,480	263,493	2	781,480	390,740
Hosiery and knit goods,	60	4,196,522	69,942	38	3,938,285	103,639
Ink, mucilage, and paste,	20	131,626	6,581	9	104,118	11,569
Ivory, bone, shell, and horn goods, etc.,	39	1,628,413	41,754	31	1,461,609	47,149
Jewelry burnishing and lapidary work,	7	47,500	6,786	2	29,500	14,750
Leather,	699	23,008,851	40,070	379	23,878,366	63,004
Linen,	3	1,068,489	356,163	2	730,989	365,495
Liquors and beverages (not spirituous),	63	641,216	10,178	36	351,703	9,770
Liquors: malt, distilled, and fermented,	218	7,881,240	36,152	86	4,364,395	50,749
Lumber,	466	3,627,345	7,784	169	1,933,113	11,439
Machines and machinery,	622	20,365,970	32,743	388	16,569,022	42,704
Metals and metallic goods,	2,732	41,332,005	15,129	901	26,097,973	28,966
Mixed textiles,	13	1,323,861	101,835	11	1,288,688	117,153

Comparative Average Value of Product per Establishment: By Industries
— Concluded.

INDUSTRIES.	TOTAL ESTABLISHMENTS			ESTABLISHMENTS MAKING RETURN		
	Number	Total Value of Product	Average Value of Product	Number	Total Value of Product	Average Value of Product
Models and patterns,	51	\$258,242	\$5,064	24	\$165,458	\$6,894
Musical instruments and materials,	93	6,145,008	66,075	61	4,494,073	73,673
Oils and illuminating fluids,	28	2,294,931	81,962	15	1,544,108	102,941
Paints, colors, and crude chemicals,	22	763,034	34,683	14	698,498	49,893
Paper and paper goods,	148	21,223,626	143,403	115	18,992,739	165,154
Perfumes, toilet articles, etc.,	10	409,801	40,980	7	402,089	57,441
Photographs and photographic materials,	241	936,165	3,885	60	265,895	4,432
Polishes and dressing,	65	1,788,412	27,514	38	1,174,776	30,915
Printing, publishing, and book-binding,	712	16,552,475	23,248	25	737,030	29,481
Print works, dye works, and bleacheries,	96	15,880,843	165,425	7	5,875,430	839,347
Railroad construction,	15	2,158,224	143,882	8	884,553	110,569
Rubber and elastic goods,	41	12,638,741	308,262	27	11,463,148	424,561
Salt,	5	46,890	9,378	2	2,030	1,015
Scientific instruments and appliances,	65	1,227,683	18,887	31	640,205	20,652
Shipbuilding,	279	2,107,986	7,556	7	1,063,462	151,923
Silk and silk goods,	12	3,501,240	291,770	10	2,846,580	284,658
Sporting and athletic goods,	27	1,079,966	39,999	15	308,166	20,544
Stone,	378	5,508,569	14,573	244	4,448,685	18,232
Straw and palm leaf goods,	47	6,265,287	133,304	26	5,430,173	208,853
Tallow, candles, soap, and grease,	155	3,474,890	22,419	91	2,780,109	30,551
Tobacco, snuff, and cigars,	302	2,813,084	9,315	169	1,908,107	11,291
Toys and games (children's),	15	316,895	21,126	10	308,407	30,841
Trunks and valises,	25	346,720	13,869	9	218,488	24,276
Whips, lashes, and stocks,	60	1,052,401	17,540	38	733,273	19,297
Wooden goods,	534	4,767,726	8,928	269	3,409,221	12,674
Woollen goods,	189	31,748,278	167,980	155	30,227,590	195,017
Worsted goods,	23	11,198,148	486,876	18	7,849,515	436,084
ALL INDUSTRIES,	23,431	\$674,634,269	\$28,792	7,935	\$464,319,253	\$58,515

In 66 industries the average value of product per establishment in the establishments making return is greater than the average value of product per establishment, in the same industries, in the Census year 1885; in 15 industries the average value of product is less, and in two industries the average value of product is the same, all the establishments in those industries having made return. Therefore, in 68 industries, judging by the average value of annual product, the largest establishments are represented by answers in relation to the

questions under consideration — markets, transportation, imports, exports, and competition both in manufacture and sale.

We now pass to the special consideration of the first subject —

MARKETS.

But one inquiry was addressed to manufacturers in relation to this subject, and that was as follows: “Where are the products of this establishment sold principally?” The proprietors of the 7,935 establishments gave their answers in so much detail, more than 300 localities being specified, that a condensation became unavoidable in order to bring the destinations into compact form for presentation in print. In the following table, which shows the facts by industries, the 300 destinations in detail are brought into 23 grand divisions, for each of which we give the number of establishments selling their product principally in the localities specified, and the value of annual product of such establishments. In the case of each industry the value of annual product is considered as 100 per cent, and the value sold in each of the specified localities is given in percentages.

MARKETS: BY INDUSTRIES.

	MARKETS.	AGRICULTURAL IMPLEMENTS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	5	\$3,215	0.31
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	1	1,600	0.16
4	Massachusetts and Middle States,	1	4,876	0.47
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	4	120,112	11.61
8	New England and Middle States,	1	8,500	0.82
9	New England, Middle, and Western States,	2	131,851	12.75
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	2	3,410	0.33
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	5	145,656	14.08
22	The United States and Foreign Countries,	2	615,000	59.47
23	Foreign Countries,	-	-	-
24	TOTALS,	23	\$1,034,220	100.00

Markets: By Industries — Continued.

	MARKETS.	AWNINGS, TENTS, AND DECORATIONS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	4	\$17,505	63.64
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	1	10,900	36.36
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	-	-	-
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	5	\$27,505	100.00

MARKETS: BY INDUSTRIES.

ARMS AND AMMUNITION			ARTIFICIAL TEETH AND DENTAL WORK			ARTISANS' TOOLS		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
3	\$7,347	0.50	65	\$90,068	91.17	23	\$96,419	4.11
1	6,000	0.40	-	-	-	1	5,000	0.21
-	-	-	-	-	-	3	42,600	1.82
-	-	-	-	-	-	3	6,500	0.28
-	-	-	-	-	-	2	890	0.04
2	10,600	0.72	4	4,725	4.79	9	88,466	3.77
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	5	449,987	19.19
1	180,000	12.17	-	-	-	-	-	-
-	-	-	-	-	-	2	8,374	0.36
-	-	-	-	-	-	-	-	-
3	16,625	1.12	-	-	-	5	84,036	3.58
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	75,000	3.20
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
12	1,231,071	83.20	1	2,000	2.02	26	874,835	37.31
1	27,938	1.89	1	2,000	2.02	11	612,872	26.13
-	-	-	-	-	-	-	-	-
23	\$1,479,581	100.00	71	\$98,793	100.00	91	\$2,344,979	100.00

Markets: By Industries — Continued.

ROOTS AND SHOES			BOXES (PAPER AND WOODEN)			BRICK, TILES, AND SEWER PIPE		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
306	\$9,026,333	9.35	101	\$2,120,879	78.46	65	\$919,030	77.93
11	158,615	0.16	3	70,376	2.60	7	80,850	6.86
5	847,423	0.36	1	2,100	0.08	-	-	-
23	1,233,745	1.28	3	49,077	1.82	-	-	-
5	298,933	0.31	-	-	-	-	-	-
4	170,323	0.18	-	-	-	-	-	-
111	4,725,920	4.89	11	309,498	11.45	4	99,030	8.40
34	2,401,588	2.49	2	11,400	0.42	-	-	-
22	3,514,497	3.64	-	-	-	-	-	-
2	519,800	0.54	-	-	-	-	-	-
5	856,605	0.89	-	-	-	-	-	-
35	4,573,044	4.74	-	-	-	-	-	-
5	357,540	0.37	-	-	-	-	-	-
21	881,466	0.91	4	32,272	1.19	-	-	-
19	2,946,585	3.05	-	-	-	-	-	-
8	1,037,061	1.07	-	-	-	-	-	-
3	605,400	0.63	-	-	-	-	-	-
63	6,020,986	6.24	-	-	-	-	-	-
31	3,225,580	3.34	-	-	-	-	-	-
101	18,302,418	18.96	-	-	-	-	-	-
200	34,724,507	35.97	2	61,000	2.26	4	40,493	3.43
7	593,974	0.61	1	46,460	1.72	1	39,840	3.38
1	25,000	0.02	-	-	-	-	-	-
1,022	\$96,547,343	100.00	128	\$2,703,062	100.00	81	\$1,179,243	100.00

Markets: By Industries — Continued.

	MARKETS.	BROOMS, BRUSHES, AND MOPS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	30	\$109,420	16.51
2	Massachusetts and other New England States,	2	9,100	1.37
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	2	31,000	4.68
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	9	128,349	19.37
8	New England and Middle States,	1	18,750	2.83
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	7	366,027	55.24
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	51	\$662,646	100.00

Markets: By Industries — Continued.

	MARKETS.	CARPETINGS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	11	\$183,472	3.07
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	1	1,392,474	23.26
6	Massachusetts and Western States,	-	-	-
7	New England States,	3	27,151	0.45
8	New England and Middle States,	2	157,300	2.63
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	1	1,200	0.02
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	1	2,019,009	33.73
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	8	2,186,199	36.52
22	The United States and Foreign Countries,	1	19,000	0.32
23	Foreign Countries,	-	-	-
24	TOTALS,	28	\$5,985,805	100.00

Markets: By Industries — Continued.

BUILDING			BURIAL CASES, CASKETS, COFFINS, ETC.			BUTTONS AND DRESS TRIMMINGS			
Es-tablish-ments	Value of Product	Percent-ages of Value of Product	Es-tablish-ments	Value of Product	Percent-ages of Value of Product	Es-tablish-ments	Value of Product	Percent-ages of Value of Product	
296	\$4,223,613	47.48	17	\$103,646	14.88	1	\$10,000	1.04	1
2	210,193	2.36	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	3
1	23,000	0.26	-	-	-	1	10,931	1.14	4
-	-	-	-	-	-	1	15,200	1.58	5
-	-	-	-	-	-	-	-	-	6
23	871,623	9.80	2	283,200	40.64	1	4,054	0.42	7
3	753,067	8.47	-	-	-	-	-	-	8
-	-	-	1	4,142	0.59	-	-	-	9
-	-	-	-	-	-	-	-	-	10
1	19,202	0.22	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
2	116,096	1.30	1	178,236	25.58	3	663,000	69.02	13
-	-	-	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	1	9,000	1.29	1	9,303	0.97	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
188	2,678,405	30.11	4	75,583	10.85	5	248,112	25.83	20
-	-	-	1	43,000	6.17	-	-	-	21
-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	23
516	\$8,895,199	100.00	27	\$696,807	100.00	13	\$960,605	100.00	24

Markets: By Industries — Continued.

CARRIAGES AND WAGONS			CEMENT, KAOLIN, LIME, AND PLASTER			CHARCOAL AND KINDLERS			
Es-tablish-ments	Value of Product	Percent-ages of Value of Product	Es-tablish-ments	Value of Product	Percent-ages of Value of Product	Es-tablish-ments	Value of Product	Percent-ages of Value of Product	
251	\$2,104,351	44.80	6	\$70,000	32.37	2	\$770	100.00	1
8	158,288	3.37	-	-	-	-	-	-	2
-	-	-	2	33,235	15.37	-	-	-	3
1	30,000	0.64	-	-	-	-	-	-	4
1	53,000	1.13	-	-	-	-	-	-	5
1	10,000	0.21	-	-	-	-	-	-	6
25	1,022,752	21.78	2	55,160	25.51	-	-	-	7
3	55,000	1.17	-	-	-	-	-	-	8
2	56,303	1.20	-	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	10
2	151,300	3.22	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	1	12,500	5.78	-	-	-	14
-	-	-	1	9,800	4.53	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
1	69,535	1.48	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
1	50,000	1.07	-	-	-	-	-	-	20
39	702,076	14.95	3	35,560	16.44	-	-	-	21
4	208,186	4.43	-	-	-	-	-	-	22
1	26,000	0.55	-	-	-	-	-	-	23
340	\$4,696,791	100.00	15	\$216,255	100.00	2	\$770	100.00	24

Markets: By Industries — Continued.

	MARKETS.	CHEMICAL PREPARATIONS (COMPOUNDED)		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	1	\$1,600	0.42
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	1	1,000	0.27
6	Massachusetts and Western States,	-	-	-
7	New England States,	3	237,908	63.08
8	New England and Middle States,	1	66,853	17.72
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	3	23,262	6.17
22	The United States and Foreign Countries,	1	46,542	12.34
23	Foreign Countries,	-	-	-
24	TOTALS,	10	\$377,165	100.00

Markets: By Industries — Continued.

	MARKETS.	COOKING, LIGHTING, AND HEATING APPARATUS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	10	\$220,831	9.70
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	2	26,800	1.18
5	Massachusetts, Middle, and Western States,	1	14,000	0.61
6	Massachusetts and Western States,	-	-	-
7	New England States,	18	1,107,189	48.61
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	1	180,000	7.90
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	7	528,775	23.22
22	The United States and Foreign Countries,	1	200,000	8.78
23	Foreign Countries,	-	-	-
24	TOTALS,	40	\$2,277,595	100.00

Markets: By Industries — Continued.

CLOCKS AND WATCHES			CLOTHING			CONCRETE WALKS, PAVING, ETC.			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
3	\$74,581	3.11	276	\$2,218,108	15.69	6	\$63,510	73.78	1
-	-	-	6	97,099	0.69	-	-	-	2
-	-	-	2	33,592	0.24	-	-	-	3
-	-	-	3	229,502	1.62	-	-	-	4
-	-	-	2	33,000	0.23	-	-	-	5
-	-	-	-	-	-	-	-	-	6
-	-	-	42	3,974,726	28.12	-	-	-	7
-	-	-	2	113,875	0.81	-	-	-	8
-	-	-	6	1,966,759	13.91	-	-	-	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	2	750,000	5.31	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	4	395,256	2.80	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
-	-	-	1	127,000	0.90	-	-	-	20
2	9,000	0.37	61	2,730,630	19.32	1	2,580	2.99	21
4	2,316,546	96.52	8	1,464,729	10.36	1	20,000	23.23	22
-	-	-	-	-	-	-	-	-	23
9	\$2,400,127	100.00	415	\$14,134,276	100.00	8	\$86,090	100.00	24

Markets: By Industries — Continued.

CORDAGE AND TWINE			CORES, BUNGS, AND TAPS			COTTON GOODS			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
15	\$963,734	19.64	-	-	-	26	\$4,156,658	7.29	1
1	5,500	0.11	-	-	-	1	148,261	0.26	2
-	-	-	-	-	-	3	951,939	1.67	3
2	120,600	2.46	-	-	-	21	11,737,413	20.60	4
-	-	-	-	-	-	6	3,245,446	5.70	5
-	-	-	-	-	-	-	-	-	6
-	-	-	1	\$28,000	39.44	6	893,548	1.57	7
-	-	-	-	-	-	11	4,722,078	8.29	8
-	-	-	-	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
1	17,000	0.35	-	-	-	32	12,157,579	21.34	14
-	-	-	-	-	-	5	3,571,580	6.27	15
-	-	-	-	-	-	2	1,723,983	3.03	16
-	-	-	-	-	-	-	-	-	17
3	834,069	17.00	-	-	-	2	512,988	0.90	18
-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	20
12	2,634,814	53.70	1	43,000	60.56	31	12,127,484	21.29	21
2	330,716	6.74	-	-	-	2	1,020,222	1.79	22
-	-	-	-	-	-	-	-	-	23
36	\$4,906,433	100.00	2	\$71,000	100.00	148	\$56,969,179	100.00	24

Markets: By Industries — Continued.

	MARKETS.	COTTON, WOOLLEN, AND OTHER TEXTILES		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	-	-	-
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	1	\$952,790	39.79
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	-	-	-
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	3	1,441,793	60.21
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	-	-	-
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	4	\$2,394,583	100.00

Markets: By Industries — Continued.

	MARKETS.	EARTHEN, PLASTER, AND STONE WARE		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	6	\$51,440	13.28
2	Massachusetts and other New England States,	1	1,000	0.26
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	4	165,873	42.83
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	1	25,000	6.45
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	1	30,000	7.75
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	3	114,000	29.43
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	16	\$387,313	100.00

Markets: By Industries — Continued.

CRAYONS, PENCILS, CRUCIBLES, ETC.			DRUGS AND MEDICINES			DYESTUFFS		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
-	-	-	162	\$357,753	11.76	2	\$230,863	36.66
1	\$39,910	38.20	4	34,850	1.15	-	-	-
1	12,480	11.94	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	20	326,376	10.72	2	84,740	13.45
-	-	-	3	43,085	1.42	-	-	-
-	-	-	1	40,000	1.31	1	138,200	21.94
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	10,000	9.57	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	1	15,000	0.49	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	4,100	3.92	30	2,148,361	70.60	2	176,000	27.95
2	38,000	36.37	4	77,757	2.55	-	-	-
-	-	-	-	-	-	-	-	-
7	\$104,490	100.00	225	\$3,043,182	100.00	7	\$629,803	100.00

Markets: By Industries — Continued.

ELECTRICAL APPARATUS AND APPLIANCES			ELECTROPLATING			EMERY AND SAND PAPER AND CLOTH, ETC.		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
13	\$434,375	36.81	6	\$34,500	44.92	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	2	6,300	8.20	1	\$18,851	3.40
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	15,000	2.70
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	2,002	0.36
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
6	527,129	44.66	-	-	-	8	477,708	86.14
3	218,649	18.53	1	36,000	46.88	1	41,040	7.40
-	-	-	-	-	-	-	-	-
22	\$1,180,153	100.00	9	\$76,800	100.00	12	\$554,601	100.00

Markets: By Industries — Continued.

	MARKETS.	FANCY ARTICLES		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	3	\$9,420	44.03
2	Massachusetts and other New England States,	—	—	—
3	Massachusetts, other New England, and Middle States,	1	7,976	37.28
4	Massachusetts and Middle States,	—	—	—
5	Massachusetts, Middle, and Western States,	—	—	—
6	Massachusetts and Western States,	—	—	—
7	New England States,	—	—	—
8	New England and Middle States,	—	—	—
9	New England, Middle, and Western States,	—	—	—
10	New England, Middle, and Southern States,	—	—	—
11	New England, Middle, Western, and Southern States,	—	—	—
12	New England and Western States,	—	—	—
13	New England and Southern States,	—	—	—
14	Middle States,	—	—	—
15	Middle and Western States,	—	—	—
16	Middle, Western, and Southern States,	—	—	—
17	Middle and Southern States,	—	—	—
18	Western States,	—	—	—
19	Southern States,	—	—	—
20	Southern and Western States,	—	—	—
21	The United States,	1	4,000	18.69
22	The United States and Foreign Countries,	—	—	—
23	Foreign Countries,	—	—	—
24	TOTALS,	5	\$21,396	100.00

Markets: By Industries — Continued.

	MARKETS.	FLAX, HEMP, AND JUTE GOODS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	—	—	—
2	Massachusetts and other New England States,	—	—	—
3	Massachusetts, other New England, and Middle States,	—	—	—
4	Massachusetts and Middle States,	1	\$21,200	1.43
5	Massachusetts, Middle, and Western States,	—	—	—
6	Massachusetts and Western States,	—	—	—
7	New England States,	—	—	—
8	New England and Middle States,	—	—	—
9	New England, Middle, and Western States,	—	—	—
10	New England, Middle, and Southern States,	—	—	—
11	New England, Middle, Western, and Southern States,	—	—	—
12	New England and Western States,	—	—	—
13	New England and Southern States,	—	—	—
14	Middle States,	—	—	—
15	Middle and Western States,	—	—	—
16	Middle, Western, and Southern States,	—	—	—
17	Middle and Southern States,	—	—	—
18	Western States,	1	24,460	1.65
19	Southern States,	3	384,665	25.93
20	Southern and Western States,	—	—	—
21	The United States,	2	1,052,898	70.99
22	The United States and Foreign Countries,	—	—	—
23	Foreign Countries,	—	—	—
24	TOTALS,	7	\$1,483,223	100.00

Markets: By Industries — Continued.

FERTILIZERS			FINE ARTS AND TAXIDERMY			FIREWORKS AND MATCHES		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
5	\$34,900	1.28	4	\$6,768	40.85	2	\$12,298	24.27
1	-	-	-	-	-	-	-	-
1	30,400	1.12	-	-	-	-	-	-
1	20,312	0.75	-	-	-	1	15,000	29.61
-	-	-	-	-	-	-	-	-
2	22,200	0.81	1	1,800	10.86	1	23,364	46.12
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	75,000	2.76	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	827,975	30.45	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	633,600	23.30	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	1,075,000	39.53	1	6,000	36.22	-	-	-
-	-	-	1	2,000	12.07	-	-	-
-	-	-	-	-	-	-	-	-
14	\$2,719,387	100.00	7	\$16,568	100.00	4	\$50,662	100.00

Markets: By Industries — Continued.

FOOD PREPARATIONS			FURNITURE			GAS AND RESIDUAL PRODUCTS		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
457	\$10,783,968	27.39	91	\$886,539	9.76	1	\$12,000	0.67
15	165,171	0.42	4	40,200	0.44	-	-	-
3	60,215	0.15	-	-	-	-	-	-
8	818,755	2.08	7	88,256	0.97	-	-	-
1	29,000	0.08	-	-	-	-	-	-
1	16,877	0.04	-	-	-	-	-	-
40	2,803,689	7.12	52	1,978,449	21.79	1	20,381	1.13
4	287,780	0.73	11	630,415	6.94	-	-	-
2	74,114	0.19	1	20,000	0.22	-	-	-
-	-	-	5	337,010	3.71	-	-	-
-	-	-	-	-	-	-	-	-
3	845,990	2.15	3	326,895	3.60	-	-	-
-	-	-	2	240,000	2.64	-	-	-
7	53,889	0.14	3	339,002	3.73	-	-	-
-	-	-	1	10,519	0.12	-	-	-
-	-	-	1	43,163	0.48	-	-	-
-	-	-	-	-	-	-	-	-
2	67,615	0.17	1	92,958	1.03	-	-	-
1	8,600	0.02	1	40,000	0.44	-	-	-
2	142,496	0.36	-	-	-	-	-	-
59	12,556,642	31.89	52	3,801,471	41.86	43	1,767,459	98.20
9	10,659,638	27.07	4	205,918	2.27	-	-	-
-	-	-	-	-	-	-	-	-
614	\$39,374,439	100.00	239	\$9,080,795	100.00	45	\$1,799,840	100.00

Markets: By Industries—Continued.

	MARKETS.	GLASS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	2	\$28,091	3.71
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	1	41,848	5.53
5	Massachusetts, Middle, and Western States,	1	93,635	12.38
6	Massachusetts and Western States,	-	-	-
7	New England States,	-	-	-
8	New England and Middle States,	1	125,000	16.53
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	3	158,397	20.94
22	The United States and Foreign Countries,	3	309,448	40.91
23	Foreign Countries,	-	-	-
24	TOTALS,	11	\$756,419	100.00

Markets: By Industries—Continued.

	MARKETS.	HOSIERY AND KNIT GOODS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	12	\$75,496	1.92
2	Massachusetts and other New England States,	1	2,072	0.05
3	Massachusetts, other New England, and Middle States,	1	105,000	2.67
4	Massachusetts and Middle States,	2	512,500	13.01
5	Massachusetts, Middle, and Western States,	4	108,204	2.75
6	Massachusetts and Western States,	-	-	-
7	New England States,	1	47,225	1.20
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	2	237,500	6.03
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	5	976,745	24.80
15	Middle and Western States,	1	1,015,382	25.78
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	1	9,525	0.24
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	8	848,636	21.55
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	38	\$3,938,285	100.00

Markets: By Industries — Continued.

GLUE, ISINGLASS, AND STARCH			HAIR WORK (ANIMAL AND HUMAN)			HOSE: RUBBER, LINEN, ETC.		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
11	\$281,918	24.42	5	\$302,580	89.24	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	170,400	14.77	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	151,688	13.14	3	9,200	2.71	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	1	800	0.24	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	60,000	5.20	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
7	401,995	34.84	2	26,500	7.81	1	\$230,960	29.55
1	88,000	7.63	-	-	-	1	550,520	70.45
-	-	-	-	-	-	-	-	-
23	\$1,154,001	100.00	11	\$339,080	100.00	2	\$781,480	100.00

Markets: By Industries — Continued.

INK, MUCILAGE, AND PASTE			IVORY, BONE, SHELL, AND HORN GOODS, ETC.			JEWELRY BURNISHING AND LAPIDARY WORK		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
-	-	-	5	\$80,900	5.53	1	\$3,500	11.86
-	-	-	-	-	-	-	-	-
-	-	-	7	91,762	6.28	1	26,000	88.14
-	-	-	1	11,500	0.79	-	-	-
-	-	-	-	-	-	-	-	-
4	\$43,232	41.52	1	2,400	0.16	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	1	8,700	0.60	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	7	129,110	8.83	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
4	40,886	39.27	8	1,059,237	72.47	-	-	-
1	20,000	19.21	1	78,000	5.34	-	-	-
-	-	-	-	-	-	-	-	-
9	\$104,118	100.00	31	\$1,461,609	100.00	2	\$29,500	100.00

Markets: By Industries — Continued.

	MARKETS.	LEATHER		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	287	\$16,287,893	68.21
2	Massachusetts and other New England States,	4	404,800	1.69
3	Massachusetts, other New England, and Middle States,	1	66,900	0.28
4	Massachusetts and Middle States,	3	132,809	0.56
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	1	30,000	0.13
7	New England States,	28	2,425,720	10.16
8	New England and Middle States,	7	606,108	2.54
9	New England, Middle, and Western States,	1	68,000	0.28
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	2	193,187	0.81
13	New England and Southern States,	-	-	-
14	Middle States,	2	41,673	0.17
15	Middle and Western States,	1	12,000	0.05
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	1	85,000	0.36
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	37	3,116,580	13.05
22	The United States and Foreign Countries,	4	407,696	1.71
23	Foreign Countries,	-	-	-
24	TOTALS,	379	\$23,878,366	100.00

Markets: By Industries — Continued.

	MARKETS.	LUMBER		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	126	\$919,729	47.58
2	Massachusetts and other New England States,	10	465,064	24.06
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	3	17,866	0.92
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	6	206,806	10.70
8	New England and Middle States,	1	2,500	0.13
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	14	69,778	3.61
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	9	251,370	13.00
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	169	\$1,933,113	100.00

Markets: By Industries — Continued.

LINEN			LIQUORS AND BEVERAGES (NOT SPIRITUOUS)			LIQUORS: MALT, DISTILLED, AND FERMENTED			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
-	-	-	31	\$203,046	57.73	60	\$1,970,195	45.14	1
-	-	-	1	6,500	1.85	3	89,030	2.04	2
-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	1	5,250	0.12	4
-	-	-	-	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-	6
-	-	-	1	6,500	1.85	12	1,689,722	38.72	7
-	-	-	-	-	-	2	169,928	3.89	8
-	-	-	-	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	1	8,400	0.19	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
2	\$730,989	100.00	3	135,657	38.57	5	271,870	6.23	20
-	-	-	-	-	-	2	160,000	3.6	21
-	-	-	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	23
2	\$730,989	100.00	36	\$351,703	100.00	86	\$4,364,395	100.00	24

Markets: By Industries — Continued.

MACHINES AND MACHINERY			METALS AND METALLIC GOODS			MIXED TEXTILES			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
99	\$1,526,229	9.21	465	\$6,195,160	23.74	1	\$350,000	27.16	1
7	138,436	0.84	8	22,627	0.09	-	-	-	2
2	7,750	0.05	6	191,016	0.73	-	-	-	3
-	-	-	12	542,704	2.08	2	221,100	17.16	4
1	2,998	0.02	2	47,919	0.18	-	-	-	5
1	4,317	0.03	3	12,398	0.05	-	-	-	6
52	1,722,322	10.39	76	4,554,685	17.45	1	2,560	0.20	7
11	402,221	2.43	12	719,258	2.76	-	-	-	8
1	30,391	0.18	7	186,996	0.72	1	205,728	15.96	9
1	12,342	0.07	1	56,263	0.22	-	-	-	10
2	480,326	2.90	3	94,000	0.36	-	-	-	11
3	134,300	0.81	6	1,328,770	5.09	-	-	-	12
3	183,913	1.11	-	-	-	-	-	-	13
6	60,720	0.37	21	716,024	2.74	-	-	-	14
2	8,650	0.05	12	457,437	1.75	-	-	-	15
1	23,000	0.14	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
3	86,726	0.52	9	289,284	1.11	2	171,800	13.33	18
1	49,555	0.30	-	-	-	-	-	-	19
1	52,870	0.32	2	136,582	0.52	-	-	-	20
165	10,535,927	63.59	226	7,942,315	30.43	2	240,000	18.62	21
26	1,106,029	6.67	30	2,604,535	9.98	2	97,500	7.57	22
-	-	-	-	-	-	-	-	-	23
338	\$16,569,022	100.00	901	\$26,097,973	100.00	11	\$1,288,688	100.00	24

Markets: By Industries — Continued.

	MARKETS.	MODELS AND PATTERNS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	16	\$108,874	65.80
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	2	6,050	3.66
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	1	6,000	3.63
20	Southern and Western States,	-	-	-
21	The United States,	5	44,534	26.91
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	24	\$165,458	100.00

Markets: By Industries — Continued.

	MARKETS.	PAPER AND PAPER GOODS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	14	\$530,806	2.79
2	Massachusetts and other New England States,	2	25,715	0.13
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	15	2,248,419	11.84
5	Massachusetts, Middle, and Western States,	5	725,610	3.82
6	Massachusetts and Western States,	-	-	-
7	New England States,	5	417,144	2.20
8	New England and Middle States,	10	1,459,129	7.68
9	New England, Middle, and Western States,	1	175,000	0.92
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	2	197,488	1.04
13	New England and Southern States,	-	-	-
14	Middle States,	10	1,500,610	7.90
15	Middle and Western States,	3	542,000	2.86
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	2	248,600	1.31
18	Western States,	1	40,000	0.21
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	38	9,725,792	51.21
22	The United States and Foreign Countries,	7	1,156,426	6.09
23	Foreign Countries,	-	-	-
24	TOTALS,	115	\$18,992,739	100.00

Markets: By Industries — Continued.

MUSICAL INSTRUMENTS AND MATERIALS			OILS AND ILLUMINATING FLUIDS			PAINTS, COLORS, AND CRUDE CHEMICALS			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
8	\$152,232	3.39	5	\$120,525	7.81	1	\$2,225	0.32	1
-	-	-	1	172,976	11.20	-	-	-	2
-	-	-	1	218,000	14.12	-	-	-	3
4	328,036	7.30	1	400,000	25.90	-	-	-	4
-	-	-	-	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-	6
4	121,237	2.70	1	236,057	15.28	5	72,562	10.39	7
-	-	-	-	-	-	-	-	-	8
1	35,197	0.78	-	-	-	1	127,651	18.27	9
-	-	-	-	-	-	1	16,804	2.41	10
-	-	-	-	-	-	-	-	-	11
1	8,300	0.18	-	-	-	1	68,600	9.82	12
-	-	-	-	-	-	-	-	-	13
2	64,408	1.43	1	4,000	0.26	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
2	121,600	2.71	1	100,000	6.48	-	-	-	17
-	-	-	-	-	-	-	-	-	18
1	24,000	0.53	-	-	-	-	-	-	19
26	2,155,700	47.97	3	288,750	18.70	4	245,656	35.17	20
11	981,401	21.84	1	3,800	0.25	1	165,000	23.62	21
1	501,962	11.17	-	-	-	-	-	-	22
61	\$4,494,073	100.00	15	\$1,544,108	100.00	14	\$698,498	100.00	24

Markets: By Industries — Continued.

PERFUMES, TOILET ARTICLES, ETC.			PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS			POLISHES AND DRESSING			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
1	\$800	0.20	46	\$150,284	56.52	7	\$76,858	6.54	1
-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	-	-	-	4
-	-	-	-	-	-	2	28,325	2.41	5
-	-	-	-	-	-	1	7,050	0.60	6
3	35,289	8.73	3	21,155	7.96	7	207,398	17.64	7
-	-	-	2	49,845	18.75	-	-	-	8
-	-	-	-	-	-	1	79,565	6.77	9
-	-	-	-	-	-	-	-	-	10
1	15,000	3.73	-	-	-	1	45,642	3.88	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	1	5,250	0.45	18
-	-	-	-	-	-	-	-	-	19
1	200,000	49.74	8	40,611	15.27	14	657,157	55.94	20
1	151,000	37.55	1	4,000	1.50	4	67,731	5.77	21
-	-	-	-	-	-	-	-	-	22
7	\$402,089	100.00	60	\$265,895	100.00	38	\$1,174,776	100.00	24

Markets: By Industries—Continued.

	MARKETS.	PRINTING, PUBLISHING, AND BOOKBINDING		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	10	\$116,200	15.77
2	Massachusetts and other New England States,	1	18,000	2.44
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	2	100,000	13.57
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	1	88,030	11.94
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	11	414,800	56.28
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	25	\$737,030	100.00

Markets: By Industries—Continued.

	MARKETS.	SALT		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	2	\$2,030	100.00
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	-	-	-
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	-	-	-
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	-	-	-
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	-	-	-
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	2	\$2,030	100.00

Markets: By Industries—Continued.

PRINT WORKS, DYE WORKS, AND BLEACHERIES			RAILROAD CONSTRUCTION			RUBBER AND ELASTIC GOODS			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
4	\$82,723	1.41	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	2	\$339,811	2.96	4
1	3,003,500	51.12	-	-	-	1	12,000	0.10	5
-	-	-	-	-	-	-	-	-	6
-	-	-	3	\$152,782	17.27	-	-	-	7
-	-	-	-	-	-	1	400,000	3.49	8
-	-	-	-	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
1	2,537,146	43.18	-	-	-	1	89,000	0.78	14
-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
-	-	-	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
-	-	-	-	-	-	-	-	-	20
1	252,061	4.29	5	731,771	82.73	20	10,382,187	90.57	21
-	-	-	-	-	-	2	240,150	2.10	22
-	-	-	-	-	-	-	-	-	23
7	\$5,875,430	100.00	8	\$884,553	100.00	27	\$11,463,148	100.00	24

Markets: By Industries—Continued.

SCIENTIFIC INSTRUMENTS AND APPLIANCES			SHIPBUILDING			SILK AND SILK GOODS			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
2	\$18,801	2.94	6	\$1,061,962	99.86	-	-	-	1
-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	2	\$199,640	7.01	4
-	-	-	-	-	-	-	-	-	5
1	6,000	0.94	-	-	-	-	-	-	6
4	40,155	6.27	-	-	-	-	-	-	7
-	-	-	-	-	-	1	63,487	2.23	8
-	-	-	-	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	-	12
-	-	-	-	-	-	-	-	-	13
1	9,740	1.52	-	-	-	-	-	-	14
1	1,650	0.26	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	17
1	1,500	0.23	-	-	-	-	-	-	18
-	-	-	-	-	-	-	-	-	19
1	3,000	0.47	-	-	-	-	-	-	20
14	542,384	84.72	1	1,500	0.14	7	2,583,453	90.76	21
2	16,975	2.65	-	-	-	-	-	-	22
-	-	-	-	-	-	-	-	-	23
31	\$640,205	100.00	7	\$1,063,462	100.00	10	\$2,846,580	100.00	24

Markets: By Industries — Continued.

	MARKETS.	SPORTING AND ATHLETIC GOODS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	2	\$9,690	3.14
2	Massachusetts and other New England States,	-	-	-
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	2	12,500	4.06
8	New England and Middle States,	1	3,600	1.17
9	New England, Middle, and Western States,	1	940	0.30
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	1	24,000	7.79
15	Middle and Western States,	1	51,786	16.80
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	-	-	-
19	Southern States,	-	-	-
20	Southern and Western States,	-	-	-
21	The United States,	6	170,650	55.38
22	The United States and Foreign Countries,	1	35,000	11.36
23	Foreign Countries,	-	-	-
24	TOTALS,	15	\$308,166	100.00

Markets: By Industries — Continued.

	MARKETS.	TOBACCO, SNUFF, AND CIGARS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	126	\$581,484	30.47
2	Massachusetts and other New England States,	9	73,285	3.84
3	Massachusetts, other New England, and Middle States,	-	-	-
4	Massachusetts and Middle States,	-	-	-
5	Massachusetts, Middle, and Western States,	-	-	-
6	Massachusetts and Western States,	-	-	-
7	New England States,	24	838,274	43.93
8	New England and Middle States,	-	-	-
9	New England, Middle, and Western States,	2	96,950	5.08
10	New England, Middle, and Southern States,	-	-	-
11	New England, Middle, Western, and Southern States,	-	-	-
12	New England and Western States,	-	-	-
13	New England and Southern States,	-	-	-
14	Middle States,	1	7,000	0.37
15	Middle and Western States,	-	-	-
16	Middle, Western, and Southern States,	-	-	-
17	Middle and Southern States,	-	-	-
18	Western States,	2	112,000	5.87
19	Southern States,	-	-	-
20	Southern and Western States,	1	16,614	0.87
21	The United States,	4	182,500	9.57
22	The United States and Foreign Countries,	-	-	-
23	Foreign Countries,	-	-	-
24	TOTALS,	169	\$1,908,107	100.00

Markets: By Industries — Continued.

STONE			STRAW AND PALM LEAF GOODS			TALLOW, CANDLES, SOAP, AND GREASE		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
153	\$1,353,992	30.44	1	\$1,375	0.03	52	\$520,872	18.74
10	134,604	3.03	-	-	-	4	7,784	0.23
1	16,500	0.37	-	-	-	2	25,379	0.91
1	275,307	6.19	3	231,198	4.26	1	125	*-
1	60,000	1.35	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
9	345,658	7.77	1	10,031	0.18	12	689,332	24.80
3	174,974	3.93	-	-	-	4	406,530	14.62
1	62,000	1.39	1	160,000	2.95	1	243,115	8.75
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	74,968	1.69	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
16	351,316	7.90	12	2,563,803	47.21	4	47,001	1.69
4	121,000	2.72	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
1	30,000	0.67	-	-	-	-	-	-
12	461,500	10.37	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
23	804,533	18.08	7	2,138,379	39.38	5	162,320	5.84
2	182,333	4.10	1	325,387	5.99	5	76,010	2.73
-	-	-	-	-	-	1	601,641	21.64
244	\$4,448,685	100.00	26	\$5,430,173	100.00	91	\$2,780,109	100.00

* Less than one one-hundredth of one per cent.

Markets: By Industries — Continued.

TOYS AND GAMES (CHILDREN'S)			TRUNKS AND VALISES			WHIPS, LASHES, AND STOCKS		
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product
-	-	-	3	\$44,088	20.18	10	\$15,535	2.12
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	1	9,000	4.12	1	1,620	0.22
-	-	-	-	-	-	-	-	-
-	-	-	4	157,300	71.99	4	12,472	1.70
1	\$5,200	1.69	-	-	-	-	-	-
2	43,000	13.94	-	-	-	3	56,000	7.64
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	61,400	19.91	-	-	-	1	100	0.01
-	-	-	-	-	-	1	6,000	0.82
-	-	-	-	-	-	-	-	-
-	-	-	1	8,100	3.71	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
2	113,807	36.90	-	-	-	12	255,746	34.88
3	85,000	27.56	-	-	-	6	385,800	52.61
-	-	-	-	-	-	-	-	-
10	\$308,407	100.00	9	\$218,488	100.00	38	\$733,273	100.00

Markets: By Industries—Concluded.

	MARKETS.	WOODEN GOODS		
		Es- tablish- ments	Value of Product	Percent- ages of Value of Product
1	Massachusetts,	160	\$1,446,656	42.43
2	Massachusetts, and other New England States,	3	10,780	0.32
3	Massachusetts, other New England, and Middle States,	2	6,616	0.19
4	Massachusetts and Middle States,	8	61,087	1.79
5	Massachusetts, Middle, and Western States,	—	—	—
6	Massachusetts and Western States,	3	13,140	0.39
7	New England States,	36	420,975	12.35
8	New England and Middle States,	5	55,600	1.63
9	New England, Middle, and Western States,	4	75,299	2.21
10	New England, Middle, and Southern States,	—	—	—
11	New England, Middle, Western, and Southern States,	—	—	—
12	New England and Western States,	3	70,526	2.07
13	New England and Southern States,	—	—	—
14	Middle States,	8	44,428	1.30
15	Middle and Western States,	1	52,000	1.53
16	Middle, Western, and Southern States,	—	—	—
17	Middle and Southern States,	1	2,680	0.08
18	Western States,	—	—	—
19	Southern States,	—	—	—
20	Southern and Western States,	1	800	0.02
21	The United States,	28	1,055,497	30.96
22	The United States and Foreign Countries,	6	93,137	2.73
23	Foreign Countries,	—	—	—
24	TOTALS,	269	\$3,409,221	100.00

A text analysis of each industry could not be more explicit nor made so graphic as the tabular presentations themselves.

RECAPITULATION. ALL INDUSTRIES.

MARKETS.	Es- tablish- ments	Value of Product	PERCENTAGES	
			Es- tablish- ments	Prod- uct
Massachusetts,	4,030	\$75,605,305	50.79	16.28
Massachusetts and other New England States,	130	2,791,086	1.64	0.60
Massachusetts, other New England, and Middle States,	37	2,116,641	0.47	0.46
Massachusetts and Middle States,	181	25,532,252	2.28	5.50
Massachusetts, Middle, and Western States,	48	9,933,484	0.60	2.14
Massachusetts and Western States,	18	270,995	0.23	0.06
New England States,	733	34,902,780	9.24	7.52
New England and Middle States,	141	14,088,071	1.78	3.03
New England, Middle, and Western States,	78	9,536,117	0.98	2.05
New England, Middle, and Southern States,	12	985,219	0.15	0.21
New England, Middle, Western, and Southern States,	14	1,807,873	0.18	0.39
New England and Western States,	72	9,277,674	0.91	2.00
New England and Southern States,	12	857,253	0.15	0.18

In this recapitulation all the industries are represented, and the 7,935 establishments, with their aggregate annual product

Markets: By Industries — Concluded.

WOOLLEN GOODS			WORSTED GOODS			ALL INDUSTRIES			
Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	Es- tablish- ments	Value of Product	Percent- ages of Value of Product	
13	\$653,767	2.16	4	\$688,875	8.78	4,030	\$75,605,305	16.28	1
-	-	-	-	-	-	130	2,791,086	0.60	2
-	-	-	-	-	-	37	2,116,641	0.46	3
22	4,311,833	14.26	1	75,000	0.96	181	25,532,252	5.50	4
5	571,840	1.89	-	-	-	48	9,933,484	2.14	5
-	-	-	-	-	-	18	270,995	0.06	6
5	283,515	0.94	3	407,000	5.18	733	34,902,780	7.52	7
1	175,000	0.58	-	-	-	141	14,088,071	3.03	8
4	1,266,232	4.19	-	-	-	78	9,536,117	2.05	9
-	-	-	-	-	-	12	985,219	0.21	10
-	-	-	-	-	-	14	1,807,873	0.39	11
1	350,000	1.16	-	-	-	72	9,277,674	2.00	12
-	-	-	-	-	-	12	857,253	0.18	13
83	18,404,812	60.89	7	6,008,190	76.54	301	50,122,764	10.79	14
-	-	-	-	-	-	54	8,808,391	1.90	15
-	-	-	-	-	-	12	2,827,207	0.61	16
-	-	-	-	-	-	7	1,481,055	0.32	17
-	-	-	-	-	-	116	11,495,813	2.48	18
-	-	-	-	-	-	40	4,388,000	0.95	19
-	-	-	-	-	-	112	18,855,780	4.06	20
21	4,210,591	13.93	3	670,450	8.54	1,584	149,203,985	32.13	21
-	-	-	-	-	-	199	28,276,905	6.09	22
-	-	-	-	-	-	4	1,154,603	0.25	23
155	\$30,227,590	100.00	18	\$7,849,515	100.00	7,935	\$464,319,253	100.00	24

We shall, therefore, limit our text consideration to the recapitulation for All Industries which follows:

RECAPITULATION. ALL INDUSTRIES — Concluded.

MARKETS.	Es- tablish- ments	Value of Product	PERCENTAGES	
			Es- tablish- ments	Product
Middle States,	301	\$50,122,764	3.79	10.79
Middle and Western States,	54	8,808,391	0.68	1.90
Middle, Western, and Southern States,	12	2,827,207	0.15	0.61
Middle and Southern States,	7	1,481,055	0.09	0.32
Western States,	116	11,495,813	1.46	2.48
Southern States,	40	4,388,000	0.50	0.95
Southern and Western States,	112	18,855,780	1.41	4.06
The United States,	1,584	149,203,985	19.96	32.13
The United States and Foreign Countries,	199	28,276,905	2.51	6.09
Foreign Countries,	4	1,154,603	0.05	0.25
TOTALS,	7,935	\$464,319,253	100.00	100.00

amounting to \$464,319,253, are allotted to one or another of 23 divisions, including the United States and Territories

and foreign countries. Foreign countries are apparently a market for only 203 establishments, or 2.56 per cent, with a product of \$29,431,508, or 6.34 per cent. These figures, however, do not fully represent either the number of establishments exporting goods to foreign countries or the value of such exports. The reason is obvious. The sections of the United States, etc., appearing in the column headed "Markets," indicate the places in which the product of the establishments considered *was sold principally*. Consequently, the same establishments which sold their product principally in the United States might also sell goods, in smaller quantities, in foreign countries. In the case of 199 establishments, or 2.51 per cent, with an annual product of \$28,276,905, or 6.09 per cent, their product was sold principally in the United States and foreign countries. In the case of four establishments, or 0.05 per cent, with an annual product of \$1,154,603, or 0.25 per cent, their product was sold principally in foreign countries. For a presentation showing the whole number of establishments exporting goods to foreign countries, and the amount of their annual product, the reader is referred to the section of this Part that is entitled "EXPORTS."

The remainder of the establishments shown in the recapitulation may be properly classified under "local markets" or "home markets." It is difficult to draw an arbitrary line between the local and home markets, owing to the union of various sections of the country in the same classification line. For instance, although there would be no doubt that Massachusetts should be considered as a local market, yet it is hardly consistent to classify such a line as "Massachusetts, Middle, and Western States" under either head. If each manufacturer had uniformly mentioned but one section of the country in which his goods were sold principally, the information supplied would have been more definite and practically applicable, and the classification more easily made. But as the manufacturers uniformly made use of the compound lines of classification, we can adopt only a purely arbitrary condensation. Following this plan, we include under "Local Markets" all those lines in which Massachusetts appears; under "Home Markets" all other lines which specify only the United States or sections thereof; and under "Foreign Markets" those lines

in which foreign countries are mentioned. This consolidation produces the following table :

Classification of Markets.

MARKETS.	Estab- lishments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Local,	4,444	\$116,249,763	56.00	25.04
Home,	3,288	318,637,982	41.44	68.62
Foreign,	203	29,431,508	2.56	6.34
TOTALS,	7,935	\$464,319,253	100.00	100.00

The relative importance of the local, home, and foreign markets to our Massachusetts manufacturers may be seen in this table. It must not be forgotten that this classification is not absolute, but that the places specified are those in which the manufacturers sell their goods principally. The preceding remarks in relation to exports should also be borne in mind.

With these forced limitations understood and allowed for, we can intelligently consider the table. We see that 4,444 establishments, or 56 per cent, find their best opportunity for selling goods in local markets. The annual product of these establishments is \$116,249,763, or 25.04 per cent of the total product of all the establishments considered. In a few words, more than one-half of the establishments find a local market for a little more than one-quarter of the total product. The average product per establishment is \$26,159.

In home markets, as defined in the classification above, 3,288 establishments, or 41.44 per cent, find opportunities for disposing of the greatest quantities of their product. The annual product of these establishments is \$318,637,982, or 68.62 per cent of the total product of all the establishments considered. To put the facts more succinctly, a little more than two-fifths of the establishments sell in home markets more than two-thirds of the total product. The average product per establishment is \$96,909, or more than three and one-half times the average product of those establishments relying upon local markets.

We have previously shown the relative importance of the establishments engaged wholly, or in part, in foreign trade, but

we repeat the figures in order to complete the presentation here. The establishments, 203 in number, form 2.56 per cent of the whole number of establishments. Their annual product aggregates \$29,431,508, or 6.34 per cent of the total product of all the establishments considered. The average product per establishment is \$144,983, showing that the establishments engaged in foreign trade are relatively much larger than those supplying the local or home markets.

Consolidating the local and home markets, we find that 7,732 out of 7,935, the whole number considered, or 97.44 per cent, sell their goods principally in the United States and Territories. The annual product of these establishments amounts to \$434,887,745, or 93.66 per cent of the total product of all the establishments considered.

Freight on Purchases and Goods Sold: By Industries.

INDUSTRIES.		Whole Number of Estab- lishments (Census year)	Number of Establish- ments Reporting as to "Markets"
1	Agricultural implements,	30	23
2	Arms and ammunition,	40	23
3	Artificial teeth and dental work,	489	71
4	Artisans' tools,	140	91
5	Awnings, tents, and decorations,	14	5
6	Boots and shoes,	2,366	1,022
7	Boxes (paper and wooden),	215	128
8	Brick, tiles, and sewer pipe,	114	81
9	Brooms, brushes, and mops,	72	51
10	Building,	3,773	516
11	Burial cases, caskets, coffins, etc.,	113	27
12	Buttons and dress trimmings,	16	13
13	Carpetings,	46	28
14	Carriages and wagons,	1,013	340
15	Cement, kaolin, lime, and plaster,	16	15
16	Charcoal and kindlers,	11	2
17	Chemical preparations (compounded),	23	10
18	Clocks and watches,	47	9
19	Clothing,	2,402	415
20	Concrete walks, paving, etc.,	20	8
21	Cooking, lighting, and heating apparatus,	65	40
22	Cordage and twine,	52	36
23	Corks, bungs, and taps,	4	2
24	Cotton goods,	165	148
25	Cotton, woollen, and other textiles,	4	4
26	Crayons, pencils, crucibles, etc.,	7	7

TRANSPORTATION.

Three inquiries were made regarding the subject of transportation. They were as follows :

1. Total amount paid for freight on purchases.
2. Total amount paid for freight on goods sold.
3. Cost per ton for transportation to principal market.

The answers to inquiries 1 and 2 covered a year's time.

Freight Paid on Purchases and Goods Sold.

We present, first, a table which shows, by industries, the respective amounts paid for freight on purchases and on goods sold.

Freight on Purchases and Goods Sold: By Industries.

FREIGHT ON PURCHASES				FREIGHT ON GOODS SOLD			
Establishments Reporting Freight on Purchases	Value of Product	Amount Paid for Freight on Purchases	Percentages of Freight of Value of Product	Establishments Reporting Freight on Goods Sold	Value of Product	Amount Paid for Freight on Goods Sold	Percentages of Freight of Value of Product
10	\$939,177	\$22,570	2.40	12	\$832,099	\$21,656	2.60
14	648,705	10,892	1.63	2	4,200	66	1.57
18	33,259	616	1.85	4	9,450	228	2.41
49	1,937,814	25,687	1.33	29	1,301,472	17,538	1.35
2	14,800	225	1.52	1	4,685	40	0.85
739	77,422,732	364,090	0.47	506	51,320,190	210,583	0.41
74	1,663,828	83,230	5.00	36	820,217	28,413	3.46
34	751,333	65,647	8.74	25	569,811	77,669	13.63
29	236,704	7,701	3.25	13	130,018	2,562	1.97
383	6,552,218	187,141	2.86	75	1,667,446	24,217	1.45
22	623,277	4,375	0.70	3	206,236	2,350	1.14
11	819,713	5,828	0.71	8	705,885	2,240	0.32
13	2,470,801	22,822	0.92	9	1,749,730	10,785	0.62
249	3,520,147	51,099	1.45	42	1,111,135	16,863	1.52
7	85,835	1,788	2.08	1	9,800	500	5.10
-	-	-	-	1	170	1	0.59
3	232,542	18,489	7.95	1	185,000	13,678	7.39
1	103,327	754	0.73	1	103,327	197	0.19
211	6,501,514	30,801	0.47	57	3,002,255	20,601	0.69
6	61,090	1,310	2.14	-	-	-	-
23	1,427,690	33,356	2.34	15	883,030	13,160	1.49
23	3,229,324	35,168	1.09	13	2,406,016	20,618	0.86
2	71,000	956	1.35	1	43,000	144	0.33
97	34,924,634	1,103,196	3.16	63	25,289,272	207,035	0.82
2	856,793	12,488	1.46	-	-	-	-
5	98,390	4,400	4.47	4	88,390	4,666	5.28

Freight on Purchases and Goods Sold: By Industries—Continued.

	INDUSTRIES.	Whole Number of Estab- lishments (Census year)	Number of Establish- ments Reporting as to "Markets"
1	Drugs and medicines,	916	225
2	Dyestuffs,	9	7
3	Earthen, plaster, and stone ware,	22	16
4	Electrical apparatus and appliances,	40	22
5	Electroplating,	35	9
6	Emery and sand paper and cloth, etc.,	13	12
7	Fancy articles,	18	5
8	Fertilizers,	17	14
9	Fine arts and taxidermy,	23	7
10	Fireworks and matches,	5	4
11	Flax, hemp, and jute goods,	9	7
12	Food preparations,	1,711	614
13	Furniture,	603	239
14	Gas and residual products,	66	45
15	Glass,	20	11
16	Glue, isinglass, and starch,	29	23
17	Hair work (animal and human),	55	11
18	Hose: rubber, linen, etc.,	3	2
19	Hosiery and knit goods,	60	38
20	Ink, mucilage, and paste,	29	9
21	Ivory, bone, shell, and horn goods, etc.,	39	31
22	Jewelry burnishing and lapidary work,	7	2
23	Leather,	699	379
24	Linen,	3	2
25	Liquors and beverages (not spirituous),	63	36
26	Liquors: malt, distilled, and fermented,	218	86
27	Lumber,	466	169
28	Machines and machinery,	622	388
29	Metals and metallic goods,	2,732	901
30	Mixed textiles,	13	11
31	Models and patterns,	51	24
32	Musical instruments and materials,	93	61
33	Oils and illuminating fluids,	28	15
34	Paints, colors, and crude chemicals,	22	14
35	Paper and paper goods,	148	115
36	Perfumes, toilet articles, etc.,	10	7
37	Photographs and photographic materials,	241	60
38	Polishes and dressing,	65	38
39	Printing, publishing, and bookbinding,	712	25
40	Print works, dye works, and bleacheries,	96	7
41	Railroad construction,	15	8
42	Rubber and elastic goods,	41	27
43	Salt,	5	2
44	Scientific instruments and appliances,	65	31
45	Shipbuilding,	279	7
46	Silk and silk goods,	12	10
47	Sporting and athletic goods,	27	15
48	Stone,	378	244

Freight on Purchases and Goods Sold: By Industries—Continued.

FREIGHT ON PURCHASES				FREIGHT ON GOODS SOLD				
Establishments Reporting Freight on Purchases	Value of Product	Amount Paid for Freight on Purchases	Percentages of Freight of Value of Product	Establishments Reporting Freight on Goods Sold	Value of Product	Amount Paid for Freight on Goods Sold	Percentages of Freight of Value of Product	
151	\$765,157	\$16,377	2.14	51	\$1,855,226	\$23,765	1.28	1
4	451,303	6,690	1.48	1	138,200	3,699	2.68	2
7	204,490	6,133	3.00	5	192,490	10,126	5.26	3
11	277,464	1,899	0.68	1	52,000	300	0.58	4
6	63,800	342	0.54	4	49,500	1,685	3.40	5
7	395,599	15,374	3.89	3	171,514	5,265	3.07	6
-	-	-	-	-	-	-	-	7
11	2,664,987	98,586	3.70	9	12,618,487	222,920	1.77	8
-	-	-	-	1	2,000	400	20.00	9
2	32,662	564	1.73	2	32,662	786	2.41	10
1	101,843	3,109	3.05	3	384,665	7,113	1.85	11
322	14,138,594	845,383	5.98	117	6,089,994	179,947	2.95	12
113	3,528,780	86,573	2.45	63	1,949,441	45,346	2.33	13
44	1,779,459	89,724	5.04	-	-	-	-	14
5	356,083	11,679	3.28	3	311,635	3,227	1.04	15
13	663,453	18,902	2.85	8	409,885	6,918	1.69	16
2	294,450	3,225	1.10	1	292,950	450	0.15	17
-	-	-	-	-	-	-	-	18
23	3,274,685	12,699	0.39	19	3,311,963	14,089	0.43	19
3	35,850	510	1.42	2	21,520	376	1.75	20
20	1,361,919	13,160	0.97	15	246,972	2,308	0.93	21
1	3,500	10	0.29	-	-	-	-	22
274	20,173,746	314,620	1.56	116	12,358,871	63,002	0.51	23
2	730,989	27,814	3.80	2	730,989	4,987	0.68	24
17	121,573	6,393	5.26	6	47,260	925	1.96	25
46	2,064,480	53,618	2.60	21	414,176	12,659	3.06	26
36	460,150	55,198	12.00	60	1,055,184	75,111	7.12	27
208	9,690,915	155,471	1.60	82	4,796,756	26,479	0.55	28
552	14,781,599	432,586	2.93	224	12,933,069	254,600	1.97	29
8	1,215,988	18,499	1.52	4	984,128	5,155	0.52	30
9	33,547	247	0.74	3	19,000	30	0.16	31
28	1,919,446	13,041	0.68	16	1,041,023	15,410	1.48	32
8	1,241,783	26,611	2.14	8	970,276	11,217	1.16	33
10	635,267	17,726	2.79	9	623,611	19,385	3.11	34
87	14,838,923	590,382	3.98	69	12,407,883	280,462	2.26	35
3	171,800	810	0.47	1	151,000	4,000	2.65	36
28	60,560	2,665	4.42	7	17,795	108	0.61	37
22	408,586	10,799	2.64	18	472,051	7,123	1.51	38
10	145,830	1,262	0.87	5	255,530	3,875	1.52	39
5	2,803,930	25,593	0.91	4	2,551,869	9,260	0.36	40
8	1,771,053	12,727	0.72	2	69,282	252	0.36	41
15	3,811,361	18,597	0.49	13	3,671,750	15,252	0.42	42
-	-	-	-	-	-	-	-	43
9	103,132	613	0.59	5	14,098	261	1.85	44
4	18,225	1,000	5.49	2	13,525	160	1.18	45
8	2,680,580	11,433	0.43	4	1,801,487	11,576	0.64	46
6	76,890	971	1.26	4	15,940	320	2.01	47
140	2,532,781	64,859	2.56	113	2,513,330	127,952	5.09	48

Freight on Purchases and Goods Sold: By Industries — Concluded.

	INDUSTRIES.	Whole Number of Estab- lishments (Census year)	Number of Establish- ments Reporting as to "Markets"
1	Straw and palm leaf goods,	47	26
2	Tallow, candles, soap, and grease,	155	91
3	Tobacco, snuff, and cigars,	302	169
4	Toys and games (children's),	15	10
5	Trunks and valises,	25	9
6	Whips, lashes, and stocks,	60	38
7	Wooden goods,	534	269
8	Woollen goods,	189	155
9	Worsted goods,	23	18
10	ALL INDUSTRIES,	23,431	7,935

The peculiar composition of this table requires some explanation. The first column gives the whole number of establishments engaged in each industry in the Census year. The second column gives the number of establishments in each industry that made returns as to "Markets." This number, as we have previously seen, is 7,935. Of these 7,935 establishments, 4,785 made returns as to the amount paid for freight on purchases, and 2,323 as to the amount paid for freight on goods sold. The value of product turned out during the year by the 4,785 establishments making returns of freight on purchases was \$301,478,732. The amount of freight paid on purchases of raw materials used in the manufacture of these goods was \$5,671,084. This amount paid for freight on purchases forms 1.88 per cent of the total value of annual product; this product forms 44.69 per cent of the total product of all manufacturing and mechanical establishments during the Census year. The figures seem thoroughly indicative and establish the "State rate" of 1.88 per cent of value of annual product which is expended by manufacturers for freight on purchases. If this State rate is applied to the total value of the product of manufactures in the Census year 1885, or \$674,634,269, we obtain \$12,683,124 as the estimated amount paid by Massachusetts manufacturers, in one year, as freight on purchases of materials used in their mills, factories, and workshops.

Freight on Purchases and Goods Sold: By Industries — Concluded.

FREIGHT ON PURCHASES				FREIGHT ON GOODS SOLD				
Establish- ments Reporting Freight on Purchases	Value of Product	Amount Paid for Freight on Purchases	Percent- ages of Freight of Value of Product	Establish- ments Reporting Freight on Goods Sold	Value of Product	Amount Paid for Freight on Goods Sold	Percent- ages of Freight of Value of Product	
18	\$4,579,629	\$24,169	0.53	15	\$3,633,677	\$36,459	1.00	1
49	1,143,732	20,502	1.79	36	1,107,271	19,092	1.72	2
96	1,385,610	6,142	0.44	29	624,518	3,281	0.53	3
8	287,407	4,011	1.40	6	242,207	3,800	1.57	4
8	212,200	1,898	0.89	3	49,100	534	1.09	5
21	331,235	2,255	0.68	7	127,420	946	0.74	6
127	1,801,877	68,466	3.80	82	1,030,828	34,118	3.31	7
129	26,856,368	283,572	1.06	109	25,409,758	139,681	0.55	8
15	6,767,015	70,966	1.05	8	3,090,014	14,464	0.47	9
4,785	\$301,478,732	\$5,671,084	1.88	2,323	\$215,818,614	\$2,426,466	1.12	10

The 2,323 establishments that made returns of the amount paid for freight on goods sold turned out an annual product of \$215,818,614. The amount paid for freight on goods sold was \$2,426,466, or 1.12 per cent of the total value of the annual product. This sum, \$215,818,614, is 31.99 per cent of \$674,634,269, the total value of all manufactured product during the Census year. As in the case of freight on purchases, we secure a State rate for freight on goods sold, the rate being 1.12 per cent. Applying this State rate to \$674,634,269, we obtain \$7,555,903 as the estimated amount paid by Massachusetts manufacturers, in one year, as freight on goods sold by them in the various markets which have been previously mentioned.

Consolidating the estimated sums paid for freight on purchases and on goods sold, we obtain \$20,239,027, which is three per cent of the total value of goods manufactured, or \$674.-634,269.

The returns cover so wide a field, embracing nearly every industry, and represent so large a percentage of the total value of manufactured goods, that we feel warranted in presenting three per cent as a State rate indicating the proportion of the total value of annual product which is paid yearly by Massachusetts manufacturers for the transportation of raw materials used in the manufacture of goods, and the transportation of such goods when completed to the various markets.

We have dealt, so far, with the State rate for all industries. It is but natural that there should be wide variations from this rate when particular industries are considered. These variations are plainly apparent when the table is inspected. In order to show these variations graphically, we present a table giving the classified percentages of freight of value of product, subdivided as regards the percentages paid on purchases and on goods sold. This presentation is for industries, that is, each industry is classified according to its percentage under "Purchases" or "Goods Sold."

Classified Percentages of Freight of Value of Product for 83 Industries.

CLASSIFIED PERCENTAGES.	PERCENTAGES OF FREIGHT OF VALUE OF PRODUCT	
	On Purchases	On Goods Sold
Under one per cent,	24	28
1 but under 2 per cent,	20	25
2 but under 3 per cent,	14	9
3 but under 4 per cent,	10	6
4 but under 5 per cent,	2	—
5 per cent and over,	8	8
Not given,	5	7
WHOLE NUMBER OF INDUSTRIES,	83	83

The percentage variations are brought out forcibly in this consolidation. Considering three per cent as the mean or average we find, as regards freight on purchases, that 58 industries give percentages under the average, 20 industries above the average, while for five industries the percentages are not given. Examining the percentages for freight on goods sold, in the same way, we see that 62 industries give percentages below the average, 14 above the average, and for seven industries no percentages are given.

The eight industries giving percentages reaching five or over, as regards freight on purchases, are Boxes (Paper and Wooden), five per cent; Brick, Tiles, and Sewer Pipe, 8.74 per cent; Chemical Preparations (Compounded), 7.95 per cent; Food Preparations, 5.98 per cent; Gas and Residual Products, 5.04 per cent; Liquors and Beverages (Not Spirituous), 5.26 per cent; Lumber, the highest of all, 12 per cent; and Shipbuilding, 5.49 per cent. The five industries for

which no percentages are given, as regards freight on purchases are Charcoal and Kindlers, Fancy Articles, Fine Arts and Taxidermy, Hose: Rubber, Linen, etc., and Salt. In these five industries but 18 establishments reported as to "Markets," and they all failed to return the amount of freight paid on purchases.

The eight industries giving percentages amounting to five or over, as regards freight on goods sold, are Brick, Tiles, and Sewer Pipe, 13.63 per cent; Cement, Kaolin, Lime, and Plaster, 5.10 per cent; Chemical Preparations (Compounded), 7.39 per cent; Crayons, Pencils, Crucibles, etc., 5.28 per cent; Earthen, Plaster, and Stone Ware, 5.26 per cent; Fine Arts and Taxidermy, the highest of all, 20 per cent; Lumber, 7.12 per cent; and Stone, 5.09 per cent. The seven industries for which no percentages are given, as regards freight on goods sold, are Concrete Walks, Paving, etc., Cotton, Woollen, and Other Textiles, Fancy Articles, Gas and Residual Products, Hose: Rubber, Linen, etc., Jewelry Burnishing and Lapidary Work, and Salt. Of these industries, Gas and Residual Products and Concrete Walks, Paving, etc., would evidently not have to pay freight on goods sold. In these seven industries, 68 establishments reported as to "Markets." Of these, the 45 establishments in Gas and Residual Products should be deducted, leaving 23 establishments only which omitted to return the amount of freight paid on goods sold.

Cost per Ton for Transportation.

The second inquiry relating to transportation was "Cost per ton for transportation to principal market?" This question was fairly well answered. We present a table which shows the whole number of establishments in operation during the Census year 1885, the number reporting as to markets, and the number reporting the cost of transportation. The value of product is also given for all establishments for the Census year 1885, for the establishments reporting as to markets, and for those reporting the cost of transportation. The presentation is by industries, 71 out of 83 being represented. For 12 industries there were no returns made as to the cost of transportation.

Number of Establishments Reporting Cost of Transportation and Value of Product in such Establishments.

INDUSTRIES.	ESTABLISHMENTS			VALUE OF PRODUCT		
	Whole Number of Establishments (Census year)	Number of Establishments Reporting as to "Markets"	Number of Establishments Reporting Cost of Transportation	Value of Product (Census year)	Value of Product of Establishments Reporting as to "Markets"	Value of Product of Establishments Reporting Cost of Transportation
Agricultural implements, . .	30	23	11	\$1,324,597	\$1,034,220	\$849,763
Arms and ammunition, . . .	40	23	6	2,058,879	1,479,581	444,924
Artificial teeth and dental work,	489	71	-	651,857	98,793	-
Artisans' tools,	140	91	21	2,509,107	2,344,979	1,112,420
Awnings, tents, and decorations,	14	5	-	108,579	27,505	-
Boots and shoes,	2,366	1,022	286	114,729,533	96,547,343	32,229,665
Boxes (paper and wooden), .	215	128	39	4,332,505	2,703,062	805,655
Brick, tiles, and sewer pipe, .	114	81	51	1,541,879	1,179,243	629,333
Brooms, brushes, and mops, .	72	51	15	1,365,373	662,646	230,601
Building,	3,773	516	39	39,801,245	8,895,199	1,127,098
Burial cases, caskets, coffins, etc.,	113	27	3	770,333	696,807	283,236
Buttons and dress trimmings, .	16	13	7	1,016,153	960,605	739,985
Carpetings,	46	28	11	6,536,341	5,985,805	5,337,635
Carriages and wagons, . . .	1,013	340	24	7,277,933	4,696,791	623,266
Cement, kaolin, lime, and plaster,	16	15	6	239,875	216,255	129,935
Charcoal and kindlers, . . .	11	2	2	11,480	770	770
Chemical preparations (compounded),	23	10	4	1,165,134	377,165	271,115
Clocks and watches,	47	9	1	3,325,199	2,400,127	103,327
Clothing,	2,402	415	18	32,659,837	14,134,276	2,005,555
Concrete walks, paving, etc., .	20	8	-	150,798	86,090	-
Cooking, lighting, and heating apparatus,	65	40	20	3,131,582	2,277,595	1,075,115
Cordage and twine,	52	36	17	5,077,261	4,906,433	2,938,820
Corks, bungs, and taps, . .	4	2	-	144,000	71,000	-
Cotton goods,	165	148	85	61,425,097	56,969,179	32,613,860
Cotton, woollen, and other textiles,	4	4	2	2,394,583	2,394,583	648,945
Crayons, pencils, crucibles, etc.,	7	7	4	104,490	104,490	88,390
Drugs and medicines,	916	225	19	4,722,838	3,043,182	372,549
Dyestuffs,	9	7	2	789,973	629,803	366,563
Earthen, plaster, and stone ware,	22	16	10	433,213	387,313	312,990
Electrical apparatus and appliances,	40	22	1	1,397,737	1,180,153	52,000
Electroplating,	35	9	3	214,507	76,800	54,800
Emery and sand paper and cloth, etc.,	13	12	7	566,101	554,601	327,054
Fancy articles,	18	5	-	81,981	21,396	-
Fertilizers,	17	14	9	2,778,987	2,719,387	2,611,787
Fine arts and taxidermy, . .	23	7	-	42,124	16,568	-

Number of Establishments Reporting Cost of Transportation and Value of Product in such Establishments — Continued.

INDUSTRIES.	ESTABLISHMENTS			VALUE OF PRODUCT		
	Whole Number of Establishments (Census year)	Number of Establishments Reporting as to "Markets"	Number of Establishments Reporting Cost of Transportation	Value of Product (Census year)	Value of Product of Establishments Reporting as to "Markets"	Value of Product of Establishments Reporting Cost of Transportation
Fireworks and matches,	5	4	2	\$91,210	\$50,662	\$12,298
Flax, hemp, and jute goods,	9	7	4	1,493,623	1,483,223	405,865
Food preparations,	1,711	614	152	80,488,329	39,374,439	8,662,516
Furniture,	603	239	63	12,716,908	9,080,795	3,015,914
Gas and residual products,	66	45	1	4,573,962	1,799,840	20,381
Glass,	20	11	3	1,091,949	756,419	170,483
Glue, isinglass, and starch,	29	23	17	1,306,331	1,154,001	845,507
Hair work (animal and human),	55	11	1	442,063	339,080	7,480
Hose: rubber, linen, etc.,	3	2	1	790,480	781,480	550,520
Hosiery and knit goods,	60	38	19	4,196,522	3,938,285	3,128,764
Ink, mucilage, and paste,	20	9	1	131,626	104,118	14,500
Ivory, bone, shell, and horn goods, etc.,	39	31	21	1,628,413	1,461,609	1,297,804
Jewelry burnishing and lapidary work,	7	2	—	47,500	29,500	—
Leather,	699	379	144	28,008,851	23,878,366	17,096,802
Linen,	3	2	2	1,068,489	730,989	730,989
Liquors and beverages (not spirituous),	63	36	8	641,216	351,703	169,020
Liquors: malt, distilled, and fermented,	218	86	29	7,881,240	4,364,395	569,076
Lumber,	466	169	101	3,627,345	1,933,113	897,530
Machines and machinery,	622	388	68	20,365,970	16,569,022	3,070,148
Metals and metallic goods,	2,732	901	159	41,332,005	26,097,973	13,247,924
Mixed textiles,	13	11	8	1,323,861	1,288,688	1,176,328
Models and patterns,	51	24	—	258,242	165,458	—
Musical instruments and materials,	93	61	11	6,145,008	4,494,073	1,107,485
Oils and illuminating fluids,	28	15	9	2,294,931	1,544,108	1,208,776
Paints, colors, and crude chemicals,	22	14	11	763,034	698,498	489,296
Paper and paper goods,	148	115	90	21,223,626	18,992,739	15,306,638
Perfumes, toilet articles, etc.,	10	7	—	409,801	402,089	—
Photographs and photographic materials,	241	60	—	936,165	265,895	—
Polishes and dressing,	65	38	14	1,788,412	1,174,776	305,686
Printing, publishing, and bookbinding,	712	25	3	16,552,475	737,030	47,000
Print works, dye works, and bleacheries,	96	7	3	15,880,843	5,875,430	5,608,646
Railroad construction,	15	8	—	2,158,224	884,553	—
Rubber and elastic goods,	41	27	14	12,638,741	11,463,148	5,686,879
Salt,	5	2	1	46,890	2,030	600
Scientific instruments and appliances,	65	31	2	1,227,683	640,205	2,158

Number of Establishments Reporting Cost of Transportation and Value of Product in such Establishments — Concluded.

INDUSTRIES.	ESTABLISHMENTS			VALUE OF PRODUCT		
	Whole Number of Establishments (Census Year)	Number of Establishments Reporting as to "Markets"	Number of Establishments Reporting Cost of Transportation	Value of Product (Census year)	Value of Product of Establishments Reporting as to "Markets"	Value of Product of Establishments Reporting Cost of Transportation
Shipbuilding,	279	7	—	\$2,107,986	\$1,063,462	—
Silk and silk goods, . . .	12	10	4	3,501,240	2,846,580	\$1,277,287
Sporting and athletic goods, .	27	15	5	1,079,966	308,166	114,226
Stone,	378	244	124	5,508,569	4,448,685	2,514,027
Straw and palm leaf goods, .	47	26	15	6,265,287	5,430,173	3,926,924
Tallow, candles, soap, and grease,	155	91	50	3,474,890	2,780,109	2,101,153
Tobacco, snuff, and cigars, .	302	169	10	2,813,084	1,908,107	348,553
Toys and games (children's),	15	10	8	316,895	308,407	283,407
Trunks and valises, . . .	25	9	1	346,720	218,488	21,300
Whips, lashes, and stocks, .	60	38	7	1,052,401	733,273	121,375
Wooden goods,	534	269	75	4,767,726	3,409,221	1,016,109
Woollen goods,	189	155	127	31,748,278	30,227,590	24,483,662
Worsted goods,	23	18	10	11,198,148	7,849,515	5,978,890
ALL INDUSTRIES,	23,431	7,935	2,121	\$674,634,269	\$464,319,253	\$215,427,082

We have shown previously that out of a total of 23,431 establishments 7,935 reported as to markets. These 7,935 establishments turned out an annual product valued at \$464,319,253 as against a total of \$674,634,269 in the 23,431 establishments. We find that 2,121 establishments reported as to the cost of transportation. This is 9.05 per cent of the whole number, and 26.73 per cent of the number reporting as to markets. These 2,121 establishments represented \$215,427,082 in value of product, this being 31.93 per cent of the total product of all establishments, and 46.40 per cent of the product of those reporting as to markets.

As the establishments reporting as to cost of transportation, though small in number relatively, turned out nearly one-third of the total value of goods made, and very nearly one-half as much as the 7,935 establishments that reported as to markets, the presentations which follow must be considered as representative as regards the point under consideration.

The next presentation is for cities and towns by industries, and shows the states and countries in which the product of the establishments considered is sold principally, and the cost

per ton for transportation from the city or town mentioned to the specified market. In the majority of cases but one price is given as the cost per ton for transportation. In other cases two figures are given, indicating the range between highest and lowest price. In other instances, the price is per package, case, etc., it being impossible to reduce it to the ton basis.

The prices given as the cost per ton for transportation vary widely, but these variations are perfectly legitimate. The distances which the goods are carried naturally affect the cost of transportation. Then, again, the character of the goods themselves, the manner in which they are packed, the probabilities of loss or breakage, the quantity shipped at one time, and other circumstances, govern transportation authorities in making up their official classifications and fixing rates.

From information kindly supplied by the Boston & Albany Railroad Co., the Pennsylvania Railroad Co., the Baltimore & Ohio Railroad Co., the Interstate Despatch Fast Freight Line, and a pamphlet entitled "Shippers' Guide from Eastern Cities," we extract the following as bearing upon the question of rates. There are six general classes of rates, those for first class being the highest. Then there are special rates, such as "once and a half first class," "double first class," "twice and a half first class," "three times first class," "four times first class," etc. Some goods are only shipped at owner's risk; others at owner's risk for breakage, chafing, or leakage. Special rates are also made for one or more carloads.

To show the variation in rates, by classes, we take from the "Shippers' Guide" the following figures, being the cost of transportation per ton to Memphis, Tenn. First class, \$20 per ton; second class, \$17 per ton; third class, \$13 per ton; fourth class, \$9 per ton; fifth class, \$7.60 per ton; and sixth class, \$7 per ton. A manufacturer may make six different articles, all properly classified in the same industry, and yet the shipping rates, to the same place, might differ for each article. In many cases where very high rates are given they were undoubtedly based upon the charges made by express companies, although it was not so stated in the return.

The above explanations will serve to explain the wide variations in rates given in the same industry, or similar variations in rates for shipment to the same locality.

COST PER TON FOR TRANSPORTATION.

AGRICULTURAL IMPLEMENTS.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BERKSHIRE.		
Tyringham, . . .	Massachusetts and Middle	\$8.00
	Middle	8.00
BRISTOL.		
Easton, . . .	The United States and Foreign Countries . . .	\$12.00
Raynham, . . .	The United States	5.00
TAUNTON, . . .	New England, Middle, and Western	6.00
FRANKLIN.		
Charlemont, . . .	New England	\$5.00
Montague, . . .	The United States and Foreign Countries	6.00— 8.00
HAMPDEN.		
Chicopee, . . .	New England	\$7.00—\$10.00
	The United States	4.60
WORCESTER.		
Harvard, . . .	New England, Middle, and Western	\$4.00
	The United States	6.00

ARMS AND AMMUNITION.

HAMPDEN.		
Chicopee, . . .	The United States	\$5.00—\$18.00
Southwick, . . .	Massachusetts, other New England, and Middle . . .	24.00
SPRINGFIELD, . . .	Middle	5.00
MIDDLESEX.		
Acton, . . .	New England, Middle, Western, and Southern . . .	\$15.00
LOWELL, . . .	The United States	5.00
SUFFOLK.		
Winthrop, . . .	Massachusetts	\$2.00

ARTISANS' TOOLS.

BRISTOL.		
Attleborough, . . .	Massachusetts, other New England, and Middle . . .	\$5.00
Easton, . . .	The United States	2.00
FRANKLIN.		
Greenfield, . . .	The United States	\$4.80
Montague, . . .	New England, Middle, and Western	4.00
Shelburne, . . .	Massachusetts and Middle	4.00
HAMPDEN.		
SPRINGFIELD, . . .	The United States and Foreign Countries	\$5.00
MIDDLESEX.		
Arlington, . . .	The United States	\$3.00
LOWELL, . . .	Massachusetts	1.50
	New England	2.00
	Western	6.00
NORFOLK.		
Stoughton, . . .	The United States	\$3.00
PLYMOUTH.		
BROCKTON, . . .	New England	\$3.00
	The United States	6.00
Kingston, . . .	Massachusetts	1.60
Norwell, . . .	Massachusetts and Western	5.00

Cost per Ton for Transportation — Continued.

ARTISANS' TOOLS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets : (States and Countries)	Cost per Ton for Trans- portation
SUFFOLK.		
BOSTON,	Massachusetts and Western	\$320.00 (by mail)
WORCESTER.		
Douglas,	The United States	\$4.00
FITCHBURG,	The United States and Foreign Countries	12.00
Milford,	New England and Western	8.00
WORCESTER,	Middle	3.60
	The United States	3.60

BOOTS AND SHOES.

BERKSHIRE.		
North Adams,	Massachusetts	\$3.00
	New England and Western	3.00
	Southern and Western	5.00
Pittsfield,	New England, Middle, and Western	4.00
BRISTOL.		
Easton,	Massachusetts	\$2.50
	Massachusetts and Middle	12.00
	New England	2.00
	Western	2.00
NEW BEDFORD,	New England	7.00— 10.00
Raynham,	Massachusetts and Middle	1.80
	New England and Western	2.00
	The United States	1.80
TAUNTON,	Massachusetts	1.00
	The United States	5.00
ESSEX.		
Andover,	New England	\$5.00
Beverly,	Massachusetts	0.75— 15.00
	New England, Middle, and Western	3.00
	New England and Western	3.00
	Middle	2.40
	The United States	30.00
Boxford,	Middle	7.00
Danvers,	Massachusetts and Western	2.50
	New England	4.50
	The United States	20.00
Essex,	New England, Middle, and Southern	20.00
Georgetown,	New England	3.50
	New England, Middle, and Western	3.00— 3.25
	Middle and Western	10.00
	Southern and Western	2.50
GLOUCESTER,	Massachusetts	1.00
Groveland,	The United States	2.00
HAVERHILL,	Massachusetts	1.20— 5.00
	Massachusetts and other New England	3.00
	Massachusetts, Middle, and Western	2.00
	New England	2.40— 30.00
	New England and Middle	6.00— 17.00
	New England and Western	12.50
	Middle	25.00
	Middle, Western, and Southern	*—
	Western	2.60— 15.00
	Southern	2.00— 12.00
	Southern and Western	2.00— 5.00
	The United States	3.40
	The United States and Foreign Countries	3.40
Ipswich,	Massachusetts and Middle	4.00
LYNN,	Massachusetts	0.50— 5.00
	Massachusetts and other New England	2.00
	Massachusetts, other New England, and Middle	2.50
	Massachusetts and Middle	0.65
	New England	1.00— 5.00
	New England and Middle	2.00— 3.50

Cost per Ton for Transportation — Continued.

BOOTS AND SHOES — Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX — Con.		
LYNN — Con. . . .	New England, Middle, Western, and Southern . . .	\$2.50
	New England and Southern	2.00
	Western	4.00
	Southern	14.00— 16.00
	Southern and Western	16.00
	The United States	5.00
	The United States and Foreign Countries	2.75—100.00
Lynnfield,	New England and Western	1.40
Marblehead,	Massachusetts	1.40— 10.00
	Southern and Western	3.00
	The United States	3.00— 30.00
Merrimac,	Massachusetts	2.50
Methuen,	Western	3.00
NEWBURYPORT,	Middle	20.00
Peabody,	Massachusetts	1.00— 3.00
Rowley,	Massachusetts	1.20— 5.00
	Massachusetts and other New England	4.00
	New England	1.50
SALEM,	Massachusetts	2.00— 3.00
Salisbury,	Massachusetts	8.00
Topsfield,	Southern	7.50
MIDDLESEX.		
Ashland,	Massachusetts	\$1.60
Burlington,	Massachusetts	2.50— 3.00
Frammingham,	Massachusetts	1.40
Groton,	New England	2.00
Holliston,	Massachusetts and other New England	2.00
	The United States	1.50— 2.00
Hopkinton,	Middle and Western	3.00
Hudson,	Massachusetts	1.70— 8.00
	Southern and Western	8.00— 15.00
Littleton,	New England	10 cents a case
Marlborough,	Massachusetts	3.20
	New England and Middle	3.50
	Western	3.20
	Southern and Western	3.20
	The United States	6.00
Natick,	Massachusetts	2.40— 2.50
	New England, Middle, and Western	2.80
	Middle and Southern	2.80
	Southern and Western	2.50— 5.00
	The United States	15.00
North Reading,	New England	10.00
Pepperell,	Southern and Western	2.00
SOMERVILLE,	New England	1.00
Stoneham,	Massachusetts	2.00— 2.50
	New England	2.00
	New England, Middle, and Western	40.00
	New England and Western	2.00— 4.00
	Western	3.00— 15.00
	The United States	10.00
Wayland,	Southern	5.00
	Southern and Western	5.00
WOBURN,	Massachusetts	2.00— 25.00
	The United States	2.00
NORFOLK.		
Holbrook,	Massachusetts	\$3.33— \$3.50
	New England	1.40— 5.00
	The United States	2.00— 14.00
Medway,	Southern and Western	2.00
QUINCY,	Massachusetts	20.00
Randolph,	New England and Western	3.00— 10.00
	Southern and Western	1.50— 8.00
	The United States	10.00— 20.00
Sharon,	New England	3.00
Stoughton,	New England	3.00
	Southern and Western	3.00
Weymouth,	Massachusetts	6.00
	New England	1.20— 4.00
	New England and Western	4.00
	Western	3.00
	The United States	3.00

Cost per Ton for Transportation — Continued.

BOOTS AND SHOES — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
PLYMOUTH.		
Abington,	Western	\$4.00
	Southern and Western	17.00
	The United States	5.00
BROCKTON,	Massachusetts	2.20— 3.60
	New England	4.00— 5.00
	New England and Middle	4.00
	New England, Middle, and Western	2.00
	New England and Western	2.00— 3.00
	New England and Southern	8.00
	Middle	6.00
	Middle, Western, and Southern	4.00
	Western	3.20— 3.40
	Southern	2.50
	Southern and Western	3.00— 10.00
	The United States	1.60— 32.00
East Bridgewater,	Massachusetts and other New England	5.00
Hanover,	Middle	5.00
	The United States	5.00
Hingham,	Massachusetts	2.50
Middleborough,	Massachusetts	1.40
Norwell,	Massachusetts	2.50
	New England and Southern	5.00— 18.00
	New England	2.00— 14.00
Rockland,	Middle, Western, and Southern	7.00
Scituate,	Massachusetts	5.00
	Middle	4.00— 19.00
West Bridgewater,	New England	2.00
Whitman,	Massachusetts	2.40
	Middle and Southern	10.00
SUFFOLK.		
BOSTON,	New England	\$4.00
	The United States	12.00
WORCESTER.		
Athol,	Western	\$4.00
	The United States	8.00
Leicester,	Massachusetts	6.00
Leominster,	New England	2.00
Mendon,	Massachusetts	3.60
Milford,	The United States	7.00
Northborough,	Massachusetts	2.00
North Brookfield,	The United States	3.00
Oxford,	Western	14.00
Shrewsbury,	Massachusetts	2.00
Southborough,	Southern and Western	8.00
Spencer,	Massachusetts	2.40
	Southern and Western	12.00
Warren,	Massachusetts, other New England, and Middle	2.60
Westborough,	The United States	2.00— 10.00
West Boylston,	New England, Middle, Western, and Southern	10.00
West Brookfield,	Massachusetts	2.00— 5.00
WORCESTER,	Massachusetts	8.00
	New England	3.00— 6.00
	Middle and Western	15.00
	Western	8.00— 20.00
	The United States	2.60— 5.00

BOXES (PAPER AND WOODEN).

BERKSHIRE.		
Sandisfield,	New England	\$2.00
Savoy,	Massachusetts	2.00
BRISTOL.		
Acushnet,	Massachusetts	\$2.00
Easton,	Massachusetts	1.00
FALL RIVER,	Massachusetts	3.00
Norton,	New England	2.00

Cost per Ton for Transportation — Continued.

BOXES (PAPER AND WOODEN) — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
Middleton,	Massachusetts	\$4.00
SALEM,	Massachusetts	6.00
Salisbury,	Massachusetts	1.00
FRANKLIN.		
Leverett,	Massachusetts and Middle	\$5.20
Leyden,	Massachusetts, other New England, and Middle	2.00
Orange,	New England	2.00
Warwick,	Massachusetts	1.00
	Middle	8.00
HAMPDEN.		
SPRINGFIELD, . . .	Middle	\$7.20
	The United States and Foreign Countries	3.00
HAMPSHIRE.		
Amherst,	Massachusetts and Middle	\$5.00
MIDDLESEX.		
CAMBRIDGE,	Massachusetts	\$0.50— \$1.00
LOWELL,	Massachusetts	1.80
	New England	5.00
Tyngsborough, . . .	Massachusetts and Middle	3.00
PLYMOUTH.		
Bridgewater,	Massachusetts	\$2.60
Carver,	Massachusetts	6.00
Halifax,	Massachusetts	3.00
Hanover,	Massachusetts	3.00
Mattapoisett,	Massachusetts	1.25
Pembroke,	Massachusetts	5.00
Whitman,	New England	2.40
SUFFOLK.		
Boston,	Massachusetts	\$0.75
	New England	2.00
WORCESTER.		
Charlton,	Massachusetts	\$2.00— \$3.00
Dana,	Middle	7.20
Leicester,	Massachusetts	1.00
Leominster,	Massachusetts	1.45— 3.00
Oxford,	Massachusetts	5.00
Worcester,	Massachusetts	2.00

BRICK, TILES, AND SEWER PIPE.

BERKSHIRE.		
Lenox,	Massachusetts	\$0.63
North Adams,	Massachusetts	0.60
BRISTOL.		
TAUNTON,	Massachusetts	\$0.70
	Massachusetts and other New England	0.50— 0.87
DUKES.		
Chilmark,	Massachusetts	\$1.50
ESSEX.		
Amesbury,	Massachusetts	\$0.25
Danvers,	Massachusetts	0.60— 0.75
	Massachusetts and other New England	0.60
	New England	2.00
NEWBURYPORT,	Massachusetts	0.30
Saugus,	Massachusetts	0.50

Cost per Ton for Transportation — Continued.

BRICK, TILES, AND SEWER PIPE — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPDEN.		
Chicopee, . . .	Massachusetts and other New England . . .	\$2.00
HOLYOKE, . . .	Massachusetts . . .	0.50
SPRINGFIELD, . . .	Massachusetts . . .	0.40— 1.00
Westfield, . . .	Massachusetts . . .	0.88
HAMPSHIRE.		
Amherst, . . .	Massachusetts . . .	\$0.50
Easthampton, . . .	Massachusetts . . .	0.50 (M brick)
NORTHAMPTON, . . .	Massachusetts . . .	0.50
South Hadley, . . .	Massachusetts . . .	0.40
MIDDLESEX.		
CAMBRIDGE, . . .	Massachusetts . . .	\$0.33— \$1.00
Everett, . . .	Massachusetts . . .	—
Framingham, . . .	Massachusetts . . .	1.00
Medford, . . .	Massachusetts . . .	2.00
Pepperell, . . .	Massachusetts . . .	0.75
SOMERVILLE, . . .	Massachusetts . . .	1.00— 1.25
NORFOLK.		
Millis, . . .	Massachusetts . . .	\$1.50
PLYMOUTH.		
Bridgewater, . . .	Massachusetts . . .	\$1.15
Hanover, . . .	Massachusetts . . .	0.75
SUFFOLK.		
Boston, . . .	New England . . .	\$1.00
WORCESTER.		
Athol, . . .	Massachusetts . . .	\$4.00— \$5.00
	New England . . .	5.00
Gardner, . . .	Massachusetts . . .	0.37
Lancaster, . . .	Massachusetts . . .	0.50— 0.75
Leominster, . . .	Massachusetts . . .	0.25
Millbury, . . .	Massachusetts . . .	0.50
North Brookfield, . . .	Massachusetts . . .	3.00
Templeton, . . .	Massachusetts . . .	0.75
Westborough, . . .	Massachusetts . . .	0.40— 0.88
Winchendon, . . .	Massachusetts . . .	2.00 (M brick)

* \$0.75 — \$2.00 (M brick).

BROOMS, BRUSHES, AND MOPS.

ESSEX.		
NEWBURYPORT, . . .	The United States . . .	\$6.00
FRANKLIN.		
Northfield, . . .	New England . . .	\$25.00
Whately, . . .	Massachusetts . . .	10 cents per doz.
HAMPSHIRE.		
Hadley, . . .	Massachusetts . . .	\$2.00— \$3.00
	Massachusetts and Middle . . .	6.00
NORTHAMPTON, . . .	The United States . . .	4.80
MIDDLESEX.		
CAMBRIDGE, . . .	Massachusetts . . .	\$1.50
LOWELL, . . .	Massachusetts . . .	19.00— 25.00
Reading, . . .	The United States . . .	5.60
Shirley, . . .	Massachusetts . . .	2.60
Tyngsborough, . . .	Massachusetts . . .	5.00

Cost per Ton for Transportation — Continued.

BUILDING.*

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BARNSTABLE.		
Provincetown, . . .	The United States	\$1.60
Sandwich,	The United States	1.50
BERKSHIRE.		
Pittsfield,	Massachusetts	\$19.00
ESSEX.		
Beverly,	Massachusetts	\$0.40
Danvers,	Massachusetts	0.50
	The United States	2.00
HAVERHILL,	The United States	0.50
LAWRENCE,	Massachusetts	2.00
	The United States	1.00
LYNN,	Massachusetts	10.00
Marblehead,	The United States	15.00
Nahant,	Massachusetts	6.00
FRANKLIN.		
Erving,	New England	\$2.50
Montague,	Massachusetts	\$1.50 (M brick)
HAMPDEN.		
HOLYOKE,	Massachusetts	\$20.00
SPRINGFIELD, . . .	Massachusetts	8.00
	Massachusetts and other New England	4.00
	New England	4.00
HAMPSHIRE.		
NORTHAMPTON, . . .	Massachusetts	\$2.50
South Hadley, . . .	Massachusetts	2.40
MIDDLESEX.		
CAMBRIDGE,	Massachusetts	\$1.00— \$2.00
	New England and Middle	1.00
LOWELL,	Massachusetts	0.90— 2.00
	New England	1.50
NEWTON,	Massachusetts	8.00
SOMERVILLE,	Massachusetts	4.50
PLYMOUTH.		
BROCKTON,	Massachusetts	\$2.50
	The United States	1.20
SUFFOLK.		
BOSTON,	Massachusetts and Middle	\$6.00
	New England	4.00
	The United States	6.00
CHELSEA,	Massachusetts	0.75
WORCESTER.		
Clinton,	Massachusetts	\$0.75
Milford,	Massachusetts	2.40
	New England	10.00
Millbury,	New England	3.25

* Including building materials only.

BURIAL CASES, CASKETS, COFFINS, ETC.

BRISTOL.		
Attleborough, . . .	The United States	\$15.00
MIDDLESEX.		
Medford,	Middle	\$6.00
PLYMOUTH.		
Whitman,	New England	\$1.25

Cost per Ton for Transportation — Continued.

BUTTONS AND DRESS TRIMMINGS.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPDEN.		
SPRINGFIELD, . . .	Massachusetts and Middle	\$4.00
	New England	320.00 (by mail)
	Middle	3.20
	The United States	3.00
HAMPSHIRE.		
Easthampton, . . .	Middle	\$4.50
NORTHAMPTON, . . .	The United States	5.20

CARPETINGS.

BRISTOL.		
TAUNTON,	Massachusetts	\$2.00
HAMPDEN.		
Palmer,	The United States	\$4.60
MIDDLESEX.		
CAMBRIDGE,	New England	\$2.10
LOWELL,	New England and Middle	2.50
	Western	3.60
SOMERVILLE,	Massachusetts	1.25
NORFOLK.		
Canton,	The United States and Foreign Countries	\$1.00— \$2.00
Norwood,	The United States	3.60
Walpole,	The United States	3.50
SUFFOLK.		
BOSTON,	Massachusetts, Middle, and Western	\$4.00
WORCESTER.		
Clinton,	The United States	\$3.60— \$5.00

CARRIAGES AND WAGONS.

BERKSHIRE.		
Monterey,	Massachusetts	\$2.00
BRISTOL.		
NEW BEDFORD,	New England	\$5.00
Rehoboth,	Massachusetts	2.50
ESSEX.		
Amesbury,	The United States and Foreign Countries	\$5.00
Merrimac,	Massachusetts	5.00— 20.00
	New England	2.40— 5.00
	The United States	2.50
	Foreign Countries	9.00
Peabody,	New England and Middle	2.50
SALEM,	New England	3.00— 20.00
Salisbury,	Western	36.00
	Southern and Western	5.00
HAMPDEN.		
Hampden,	Massachusetts	\$1.20
MIDDLESEX.		
Shirley,	The United States	\$6.25
SOMERVILLE,	New England	0.50
Westford,	Massachusetts	2.00
SUFFOLK.		
BOSTON,	The United States and Foreign Countries	\$4.00

Cost per Ton for Transportation — Continued.

CARRIAGES AND WAGONS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
WORCESTER.		
Barre,	Massachusetts	\$1.20
Royalston,	Massachusetts	1.50
Westborough,	Massachusetts	6.00
WORCESTER,	New England	20.00

CEMENT, KAOLIN, LIME, AND PLASTER.

BERKSHIRE.		
Adams,	New England	\$1.50
Cheshire,	Massachusetts, other New England, and Middle The United States	2.00 12.50
Lenox,	Middle	2.00
West Stockbridge,	Massachusetts, other New England, and Middle	2.00
HAMPDEN.		
Chester,	Middle and Western	\$4.50

CHARCOAL AND KINDLERS.

MIDDLESEX.		
Boxborough,	Massachusetts	\$6.00
WORCESTER.		
WORCESTER,	Massachusetts	\$1.00

CHEMICAL PREPARATIONS (COMPOUNDED).

BRISTOL.		
Seekonk,	The United States	\$1.25
MIDDLESEX.		
WOBURN,	New England	\$1.00
NORFOLK.		
Canton,	The United States	\$1.50
Walpole,	New England and Middle	1.00

CLOCKS AND WATCHES.

BERKSHIRE.		
Pittsfield,	The United States and Foreign Countries	\$3.60

CLOTHING.

BARNSTABLE.		
Harwich,	Massachusetts and other New England	\$3.80
Orleans,	Massachusetts and Middle	4.00
BERKSHIRE.		
Lee,	Massachusetts	\$5.00
Pittsfield,	Massachusetts, other New England, and Middle	3.60
	The United States	4.00— 15.00

Cost per Ton for Transportation — Continued.

CLOTHING — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
Bradford, . . .	The United States	\$14.20
Haverhill, . . .	Middle	5.00
LYNN,	Massachusetts	25.00
Methuen, . . .	Southern and Western	16.00
NEWBURYPORT, . . .	Middle	25.00
Rockport, . . .	Massachusetts	2.40
HAMPSHIRE.		
Easthampton, . . .	The United States and Foreign Countries	\$4.60
MIDDLESEX.		
LOWELL,	The United States	\$5.00
Natick,	The United States	17.00
WALTHAM, . . .	The United States	12.50
PLYMOUTH.		
Abington, . . .	Massachusetts, Middle, and Western	\$25.00
SUFFOLK.		
Boston,	New England	\$12.00
	The United States	6.00

COOKING, LIGHTING, AND HEATING APPARATUS.

BERKSHIRE.		
Hinsdale,	Massachusetts and Middle	\$3.80
BRISTOL.		
Dighton,	New England	\$1.80
FALL RIVER, . . .	New England	2.60
Mansfield, . . .	The United States	3.00
Somerset,	New England	3.40
TAUNTON,	Massachusetts	2.00
	Massachusetts and Middle	1.60
	New England	1.25— 2.50
	New England and Western	*—
ESSEX.		
Andover,	The United States and Foreign Countries	\$4.00
PLYMOUTH.		
BROCKTON,	Massachusetts	\$3.20
Carver,	Massachusetts	3.40— 4.00
Kingston,	New England	2.50
Plymouth,	New England	2.00
SUFFOLK.		
Boston,	The United States	\$35.00
WORCESTER.		
Templeton,	New England	\$3.00

* \$1.20 per carload. Double rates for less than a carload.

CORDAGE AND TWINE.

BRISTOL.		
FALL RIVER, . . .	Middle	\$2.50
NEW BEDFORD, . . .	The United States	2.00
Westport,	The United States	6.00

Cost per Ton for Transportation—Continued.

CORDAGE AND TWINE—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
Essex,	Massachusetts	\$2.00
Manchester,	The United States	2.00
MIDDLESEX.		
CAMBRIDGE,	Massachusetts	\$3.00
Lexington,	Massachusetts	2.00
LOWELL,	Massachusetts and Middle The United States	4.00 5.00
MALDEN,	The United States	2.00
PLYMOUTH.		
Hingham,	Massachusetts	\$4.50
Plymouth,	Massachusetts	2.00
SUFFOLK.		
BOSTON,	Massachusetts	\$13.00
	Western	3.00— 6.00
	The United States	4.00

COTTON GOODS.

BERKSHIRE.		
Adams,	New England	\$3.00
	Middle	3.00
	The United States	3.00
Cheshire,	Massachusetts	3.60
Great Barrington,	The United States	3.60
North Adams,	Middle	3.00
Pittsfield,	The United States	0.50— 16.00
Williamstown,	Massachusetts	1.00
BRISTOL.		
Attleborough,	Middle	\$2.06— \$6.00
Easton,	The United States	4.00
FALL RIVER,	Massachusetts and Middle New England and Middle Middle Western	1.20— 4.00 3.50 2.00 3.20
Freetown,	Massachusetts	1.80
NEW BEDFORD,	Massachusetts and Middle New England and Middle The United States	1.60— 2.00 4.00 1.75
TAUNTON,	Massachusetts and other New England Massachusetts and Middle Middle Middle, Western, and Southern	1.60— 4.00 2.25— 4.00 2.50 2.50
ESSEX.		
LAWRENCE,	Middle, Western, and Southern	\$3.30
	The United States	1.00— 3.30
Methuen,	Middle	3.80
NEWBURYPORT,	Massachusetts and Middle	3.00— 4.00
FRANKLIN.		
Colrain,	Middle	\$4.00
Conway,	Massachusetts	3.27
Montague,	Middle	4.00
Shelburne,	Middle	2.00
HAMPDEN.		
Chicopee,	Massachusetts and Middle	\$4.00
HOLYOKE,	Massachusetts, Middle, and Western	4.60— 12.00
	The United States and Foreign Countries	3.40
Palmer,	Massachusetts, Middle, and Western	3.75
	Middle and Western	3.75
SPRINGFIELD,	Massachusetts, Middle, and Western	3.20— 4.35
	The United States	4.00
West Springfield,	Middle	4.00

Cost per Ton for Transportation — Continued.

COTTON GOODS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPSHIRE.		
Eathamton, . . .	New England and Middle	\$7.00
Ware,	Massachusetts, Middle, and Western	3.80
MIDDLESEX.		
Ashland,	Middle and Western	\$5.00
LOWELL,	Massachusetts and Middle	1.25— 3.30
	Middle	1.65
	Middle and Western	3.30
WALTHAM,	The United States	2.40
NORFOLK.		
Franklin,	The United States	\$2.50
Hyde Park,	Middle	2.66
Medway,	Middle	6.00
Sharon,	Massachusetts	2.70
Walpole,	Massachusetts and Middle	3.00
	The United States	2.00— 20.00
PLYMOUTH.		
Plymouth,	New England	\$1.60
	The United States	1.80
WORCESTER.		
Ashburnham,	Massachusetts	\$2.00
Athol,	Massachusetts	5.00
Clinton,	Middle	3.20— 5.50
FITCHBURG,	Massachusetts	2.80
	The United States	3.20
Grafton,	Middle	3.60
Millbury,	Massachusetts, Middle, and Western	3.30
Northbridge,	Massachusetts and Middle	4.00
	Middle	3.60
Southbridge,	Massachusetts and Middle	3.20— 6.00
Sutton,	Massachusetts	2.40
	Middle	2.66
Warren,	Middle and Western	4.00
West Boylston,	Middle	3.20
	Middle and Western	3.20
	The United States	3.20
Winchendon,	The United States	5.00— 40.00
WORCESTER,	Massachusetts and Middle	4.00— 5.00

COTTON, WOOLLEN, AND OTHER TEXTILES.

ESSEX.		
LAWRENCE,	Middle	\$7.00
NORFOLK.		
Dedham,	Middle	\$2.00

CRAYONS, PENCILS, CRUCIBLES, ETC.

BRISTOL.		
TAUNTON,	Massachusetts and other New England	\$6.00
HAMPSHIRE.		
Cumington,	Massachusetts and Middle	\$8.60
MIDDLESEX.		
WALTHAM,	The United States	\$3.00
	The United States and Foreign Countries	3.00

Cost per Ton for Transportation—Continued.

DRUGS AND MEDICINES.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BERKSHIRE.		
Pittsfield, . . .	Massachusetts	\$4.00
	New England	20.00
BRISTOL.		
NEW BEDFORD, . .	Massachusetts	\$3.50
TAUNTON, . . .	Massachusetts	2.50
ESSEX.		
Essex,	Massachusetts	\$2.00
LAWRENCE, . . .	The United States	5.00
LYNN,	Middle and Southern	2.00
HAMPSHIRE.		
NORTHAMPTON, . .	Massachusetts and other New England	\$3.40
MIDDLESEX.		
Bedford,	The United States	\$6.00
MALDEN,	Massachusetts	1.50
Maynard,	Massachusetts	2.20
WOBURN,	New England	5.00
NORFOLK.		
Medway,	New England and Middle	\$10.00
PLYMOUTH.		
Bridgewater, . .	The United States	\$1.50
SUFFOLK.		
BOSTON,	New England	\$5.00
	The United States	*—
WORCESTER.		
Douglas,	Massachusetts	\$1.60
Harvard,	Massachusetts	2.25
Southbridge, . .	Massachusetts	3.00

* First-class rates.

DYESTUFFS.

ESSEX.		
LAWRENCE, . . .	New England, Middle, and Western	\$3.60
SUFFOLK.		
BOSTON,	Massachusetts	\$0.65

EARTHEN, PLASTER, AND STONE WARE.

BRISTOL.		
Somerset,	Massachusetts	\$6.00
	Massachusetts and other New England	10.00
TAUNTON,	New England	2.00
ESSEX.		
Beverly,	Massachusetts	\$1.40
Peabody,	Massachusetts	2.00
MIDDLESEX.		
CAMBRIDGE, . . .	The United States	\$5.00—\$20.00

Cost per Ton for Transportation—Continued.

EARTHEN, PLASTER, AND STONE WARE—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
SUFFOLK.		
BOSTON, . . .	New England	\$1.75—\$3.56
	The United States	5.20
WORCESTER.		
Brookfield, . . .	New England and Western	\$5.00

ELECTRICAL APPARATUS AND APPLIANCES.

MIDDLESEX.		
NEWTON, . . .	Massachusetts	\$1.50

ELECTROPLATING.

BRISTOL.		
NEW BEDFORD, . .	New England	\$10.00
MIDDLESEX.		
LOWELL, . . .	Massachusetts	\$1.00
WORCESTER.		
WORCESTER, . . .	The United States and Foreign Countries	\$3.00

EMERY AND SAND PAPER AND CLOTH, ETC.

HAMPDEN.		
Chester, . . .	The United States	\$6.00
HAMPSHIRE.		
NORTHAMPTON, . .	The United States	\$12.00
MIDDLESEX.		
Everett, . . .	The United States	\$0.75—\$5.00
MALDEN, . . .	The United States	5.00
WALTHAM, . . .	New England	*20.00
WORCESTER.		
Grafton, . . .	The United States and Foreign Countries	\$5.00

* Express rates.

FERTILIZERS.

BARNSTABLE.		
Chatham, . . .	New England	\$1.00
Falmouth, . . .	Middle and Southern	5.00
BRISTOL.		
Dartmouth, . . .	Southern	\$3.00
ESSEX.		
GLOUCESTER, . . .	Massachusetts and Middle	\$1.25—\$2.75
HAMPDEN.		
SPRINGFIELD, . .	Massachusetts, other New England, and Middle	\$2.00

Cost per Ton for Transportation—Continued.

FERTILIZERS—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
NORFOLK.		
Weymouth, . . .	The United States	\$2.00
PLYMOUTH.		
Duxbury, . . .	The United States	\$4.00
SUFFOLK.		
Boston, . . .	New England	\$2.50
WORCESTER.		
Northborough, . . .	Massachusetts	\$1.50

FIREWORKS AND MATCHES.

SUFFOLK.		
Boston, . . .	Massachusetts	\$3.00— \$6.00

FLAX, HEMP, AND JUTE GOODS.

ESSEX.		
Salem, . . .	Southern	\$5.00
WORCESTER.		
Dudley, . . .	Southern	\$2.60
Leominster, . . .	Massachusetts	3.00

FOOD PREPARATIONS.

BARNSTABLE.		
Orleans, . . .	Massachusetts and Middle	\$3.00
Provincetown, . . .	Massachusetts	0.60— 2.50
	Massachusetts and Middle	2.50— 5.00
	Middle	2.50— 20.00
	The United States	3.25
Wellfleet, . . .	Middle	2.50
BERKSHIRE.		
Great Barrington, . . .	Massachusetts, other New England, and Middle . . .	\$10.00
Hancock, . . .	Massachusetts	6.80
Lee, . . .	Massachusetts	12.00
New Marlborough, . . .	Middle	10.00
Pittsfield, . . .	Massachusetts	1.25
	Massachusetts, other New England, and Middle . . .	2.60
Sheffield, . . .	Middle	7.00
West Stockbridge, . . .	Massachusetts	2.00
	Massachusetts, Middle, and Western	35.00
BRISTOL.		
Attleborough, . . .	Massachusetts	\$2.00
Dighton, . . .	Massachusetts	2.00
FALL RIVER, . . .	Massachusetts	1.80
Mansfield, . . .	Massachusetts	6.00— 8.00
	Massachusetts and Middle	5.00
NEW BEDFORD, . . .	Massachusetts	0.50— 13.00
	New England	10.00
Swansea, . . .	Massachusetts and other New England	4.00
Taunton, . . .	Massachusetts	0.50

Cost per Ton for Transportation—Continued.

FOOD PREPARATIONS—Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
Beverly,	Massachusetts	\$0.55
Essex,	Massachusetts	1.00
GLOUCESTER,	Massachusetts	0.75— 1.60
	New England	2.00
	New England and Middle	5.00
	New England and Western	1.75— 8.00
	Western	5.00
	Southern and Western	8.00
	The United States	5.00— 6.00
	The United States and Foreign Countries	10.00
Hamilton,	Massachusetts	0.55
Ipswich,	Massachusetts	0.40
LAWRENCE,	Massachusetts	1.80
Marblehead,	Massachusetts	1.00
Newbury,	Massachusetts	0.75
NEWBURYPORT,	Massachusetts	0.75
	Massachusetts and Middle	2.70
	New England	2.20
North Andover,	Massachusetts	0.80
Peabody,	Massachusetts	0.70
Rowley,	Massachusetts	2.00
Topsfield,	Massachusetts	1.50
Wenham,	Massachusetts	1.40— 2.00
FRANKLIN.		
Deerfield,	Massachusetts	\$2.00
Northfield,	Massachusetts	3.30
Orange,	Massachusetts	0.20
HAMPDEN.		
Granville,	Massachusetts	\$4.00
HOLYOKE,	Massachusetts	3.00
Palmer,	The United States	15.00
Russell,	Massachusetts	4.00
SPRINGFIELD,	The United States and Foreign Countries	2.00— 5.00
Wilbraham,	New England	0.75
HAMPSHIRE.		
Belchertown,	Massachusetts	\$5.00
NORTHAMPTON,	Massachusetts	1.00
South Hadley,	Massachusetts	1.50
Ware,	Massachusetts	2.00
Williamsburg,	Massachusetts	0.75
MIDDLESEX.		
Acton,	Massachusetts	\$8.00
Arlington,	Southern and Western	0.45
Ashby,	Massachusetts	5.00
CAMBRIDGE,	Massachusetts	0.40
	Massachusetts, other New England, and Middle	1.50
	New England	3.00
	New England and Middle	2.00— 16.00
Framingham,	Massachusetts	1.50
Groton,	Massachusetts	7.00
Lexington,	Massachusetts	2.00
Melrose,	Massachusetts	1.00
Natick,	Massachusetts	0.50
North Reading,	Massachusetts	2.00— 3.00
Shirley,	Massachusetts and other New England	2.60
SOMERVILLE,	Massachusetts	2.00
	Massachusetts and other New England	3.00
	The United States and Foreign Countries	*1.00
WALTHAM,	Massachusetts	0.50
Watertown,	Massachusetts	1.50
Wayland,	Massachusetts	2.00
Wilmington,	Massachusetts	0.90
NORFOLK.		
Brookline,	Massachusetts	\$3.00
Cohasset,	Massachusetts	1.00

* To Boston.

Cost per Ton for Transportation — Continued.

FOOD PREPARATIONS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
NORFOLK — Con.		
Foxborough, . . .	Massachusetts	\$2.00
Franklin,	Massachusetts and other New England	2.00
Medway,	Massachusetts	1.80
Milton,	The United States and Foreign Countries	3.00
Norfolk,	Massachusetts	1.80
Randolph,	New England	1.75
Walpole,	The United States	3.00
Wellesley,	Massachusetts	0.60
Weymouth,	Massachusetts	2.00
PLYMOUTH.		
Bridgewater, . . .	Massachusetts	\$2.50
BROCKTON,	Massachusetts	1.00— 3.00
Kingston,	Massachusetts	1.50
Marion,	Massachusetts	8.00
Middleborough, . .	Massachusetts	1.50
Plymouth,	Southern	8.00
West Bridgewater, .	Massachusetts	10.00
SUFFOLK.		
BOSTON,	Massachusetts	\$0.50— \$5.00
	New England	4.00— 30.00
	The United States	1.00— 38.20
WORCESTER.		
Barre,	Massachusetts	\$5.60
Boylston,	Massachusetts	3.00
Clinton,	Massachusetts	3.20
Douglas,	Massachusetts	0.50
FITCHBURG,	Massachusetts	1.00
Harvard,	Massachusetts	3.00
	The United States	2.00
Leicester,	Massachusetts	1.00
Millbury,	Massachusetts	1.50
New Braintree, . .	Massachusetts	5.00
North Brookfield, .	Massachusetts and other New England	5.00
Phillipston, . . .	Massachusetts	20.00
Shrewsbury, . . .	Massachusetts	1.40
Spencer,	Massachusetts	1.25
Upton,	Massachusetts	0.60
Warren,	New England	20.00
West Boylston, . .	Massachusetts	1.00
Westminster, . . .	Massachusetts	10.00
	Massachusetts and other New England	5.00
WORCESTER, . . .	Massachusetts	0.40— 1.50

FURNITURE.

BERKSHIRE.		
Sandisfield, . . .	New England	\$2.00
FRANKLIN.		
Charlemont, . . .	Massachusetts	\$3.00
Erving,	Massachusetts and Middle	3.40— 4.00
	New England, Middle, and Southern	5.00
Heath,	Massachusetts	4.00
Orange,	Middle	9.00
HAMPDEN.		
HOLYOKE,	The United States	\$10.80
SPRINGFIELD, . .	Massachusetts	2.00
MIDDLESEX.		
Ayer,	New England	\$6.00
CAMBRIDGE, . . .	Massachusetts	1.00
	The United States	10.00

Cost per Ton for Transportation—Continued.

FURNITURE — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
MIDDLESEX—Con.		
CAMBRIDGE—Con.	The United States and Foreign Countries	*—
LOWELL,	Massachusetts and other New England	\$2.00
	Massachusetts and Middle	5.00
Reading,	Massachusetts	4.00
	New England	2.50
Weston,	Massachusetts	3.00
Winchester,	The United States	4.50
NORFOLK.		
Walpole,	Massachusetts	\$3.00
Weymouth,	New England	5.00
SUFFOLK.		
BOSTON,	New England	\$4.00—\$20.00
	New England and Middle,	2.00
	New England and Southern	2.00— 15.00
	The United States	1.80— 80.00
CHELSEA,	New England	2.50
WORCESTER.		
Ashburnham,	Massachusetts	\$1.50
	New England and Middle	3.50
	The United States	6.00
	The United States and Foreign Countries	10.00— 12.00
Athol,	Massachusetts and Middle	4.00—†30.00
	New England and Middle	8.00
	The United States	6.00
Barre,	The United States	5.00
Dana,	Massachusetts	3.50
FITCHBURG,	Middle	4.00
Gardner,	New England	30.00
	New England, Middle, and Southern	5.00— 10.20
	Middle	5.00
	The United States	3.60— 5.00
Hardwick,	Massachusetts	2.00
Hubbardson,	The United States and Foreign Countries	4.00
Leominster,	Massachusetts	†6.00
	New England	1.68— 6.00
Phillipston,	Massachusetts	40.00
Royalston,	The United States	4.00— 12.00
Sterling,	Massachusetts	1.00— 8.00
Templeton,	New England	4.00
	New England and Middle	2.50— 4.00
	New England and Western	3.50
Westminster,	Massachusetts and Middle	2.10
	New England, Middle, and Southern	4.50
	The United States	5.00
Winchendon,	Massachusetts	3.00

* To London, \$3.75. To New York, \$1.20 per ton of 40 cubic feet.

† Per car.

‡ \$2.00 per 100 chairs.

GAS AND RESIDUAL PRODUCTS.

SUFFOLK.		
BOSTON,	New England	\$3.00
GLASS.		
BERKSHIRE.		
Lanesborough,	Massachusetts, Middle, and Western	\$2.70— \$7.00
Lenox,	Massachusetts and Middle	4.00
BRISTOL.		
NEW BEDFORD,	The United States	\$4.00

Cost per Ton for Transportation — Continued.

GLUE, ISINGLASS, AND STARCH.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
GLOUCESTER, . . .	The United States	\$1.40— \$2.00
Ipswich,	The United States	10.00
LYNN,	Massachusetts	2.50
Peabody,	Massachusetts	2.50
	Massachusetts, Middle, and Western	1.20
	The United States	2.00
Rockport,	Western	20.00
Salisbury,	Massachusetts	2.40
MIDDLESEX.		
Billerica,	Massachusetts	\$1.20
NEWTON,	Massachusetts	1.50— 2.00
WOBURN,	New England	0.80
NORFOLK.		
Wellesley,	Massachusetts	\$2.00
SUFFOLK.		
BOSTON,	Massachusetts	\$1.50
WORCESTER.		
Harvard,	Massachusetts	\$2.50

HAIR WORK (ANIMAL AND HUMAN).

ESSEX.		
Peabody,	Massachusetts	\$25.00

HOSE: RUBBER, LINEN, ETC.

MIDDLESEX.		
CAMBRIDGE,	The United States and Foreign Countries	\$4.00

HOSIERY AND KNIT GOODS.

BERKSHIRE.		
Pittsfield,	The United States	\$3.60
ESSEX.		
Ipswich,	Middle	\$3.20
	The United States	1.75
Methuen,	Middle	2.
HAMPDEN.		
SPRINGFIELD,	Middle	\$8.00
MIDDLESEX.		
Everett,	The United States	\$2.00
LOWELL,	New England, Middle, and Western	0.40
	Middle	4.70
	Middle and Western	3.30
	The United States	3.20
NEWTON,	Massachusetts	25.00

* Fifty-five cents per cubic foot.

Cost per Ton for Transportation—Continued.

HOSIERY AND KNIT GOODS—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
NORFOLK.		
Canton,	Massachusetts	\$6.00
Needham,	Massachusetts, Middle, and Western	6.00— 15.00
	Middle	5.00
Stoughton,	Massachusetts	10.00
	The United States	6.00
PLYMOUTH.		
Hingham,	New England, Middle, and Western	\$2.00
WORCESTER.		
Leicester,	Massachusetts and other New England	\$9.00

INK, MUCILAGE, AND PASTE.

WORCESTER.		
Warren,	The United States	\$32.00

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

BERKSHIRE.		
Adams,	The United States	\$2.40
	The United States and Foreign Countries	2.60
ESSEX.		
LAWRENCE,	Middle	\$20.00
West Newbury,	Middle	10.00
WORCESTER.		
Clinton,	Middle	\$15.00
Leominster,	Massachusetts and Middle	5.00— 18.00
	New England	3.00
	New England, Middle, and Western	10.00
	Middle	13.00— 17.00
	The United States	8.00— 15.00
Northborough,	Massachusetts	4.00
	Massachusetts, Middle, and Western	15.00
	The United States	40.00

LEATHER.

BARNSTABLE.		
Falmouth,	Massachusetts	\$4.00
BERKSHIRE.		
Hancock,	Massachusetts, other New England, and Middle	\$5.00
North Adams,	Massachusetts and Middle	3.00
	The United States	5.50
Pittsfield,	Massachusetts and Middle	3.60
DUKES.		
Tisbury,	New England	\$25.00
ESSEX.		
HAVERHILL,	Massachusetts	\$3.00
LAWRENCE,	Massachusetts	1.25
LYNN,	Massachusetts	2.25— 2.50
	New England	2.50
	New England and Middle	2.50— 2.85
	Middle	2.00
	The United States	2.70

Cost per Ton for Transportation — Continued.

LEATHER — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX — Con.		
Peabody,	Massachusetts	\$1.50— \$3.00
SALEM,	Massachusetts and other New England	2.50
Wenham,	Massachusetts	1.20— 25.00
	The United States	2.50— 3.00
	Massachusetts	1.80
HAMPSHIRE.		
Blandford,	Massachusetts	\$1.00— \$3.00
SPRINGFIELD,	New England	15.00
Tolland,	Middle	6.40
HAMPSHIRE.		
Amherst,	Massachusetts	\$3.80
MIDDLESEX.		
CAMBRIDGE,	The United States and Foreign Countries	\$1.50— \$7.00
LOWELL,	New England	2.50
Medford,	The United States	1.60
Stoneham,	Massachusetts	1.60
	Massachusetts	1.60— 2.00
	The United States	2.00
Townsend,	Massachusetts	2.00
Wilmington,	The United States and Foreign Countries	1.00
Winchester,	Massachusetts	1.60— 2.00
	Massachusetts and other New England	1.60
	The United States	2.00
WOBURN,	Massachusetts	1.50— 7.50
	New England	1.60— 2.00
	New England and Western	1.80
NORFOLK.		
Needham,	New England	\$1.20
Norwood,	New England	1.20
QUINCY,	Massachusetts	2.00
Weymouth,	New England	2.00
SUFFOLK.		
BOSTON,	Massachusetts	\$1.00— \$1.60
	The United States	2.00
Winthrop,	Massachusetts	2.00
WORCESTER.		
Athol,	Western	\$0.50
Auburn,	Massachusetts	5.00
Shrewsbury,	Massachusetts	1.25
WORCESTER,	Massachusetts	5.00
	The United States	10.00

LINEN.

ESSEX.		
Andover,	The United States	\$2.40
WORCESTER.		
Dudley,	The United States	\$2.40

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

BARNSTABLE.		
Bourne,	The United States	\$1.25
BRISTOL.		
Easton,	Massachusetts	\$1.80
Swansea,	Massachusetts	3.00

Cost per Ton for Transportation — Continued.

LIQUORS AND BEVERAGES (NOT SPIRITUOUS) — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
MIDDLESEX.		
Ayer,	Massachusetts	\$1.00
LOWELL,	The United States	1.80
SUFFOLK.		
BOSTON,	Massachusetts	\$3.00
WORCESTER.		
Milford,	Massachusetts	\$5.00
Sterling,	Massachusetts	2.00

LIQUORS: MALT, DISTILLED, AND FERMENTED.

BERKSHIRE.		
Dalton,	Massachusetts	\$2.00
Otis,	Massachusetts	1.50
Pittsfield,	Massachusetts	3.00
Sheffield,	Massachusetts	1.00
	Middle	3.00
West Stockbridge,	Massachusetts	1.50
BRISTOL.		
TAUNTON,	New England	\$1.54
ESSEX.		
LAWRENCE,	New England	\$1.50
NEWBURYPORT,	New England and Middle	1.80— 2.50
HAMPDEN.		
HOLYOKE,	Massachusetts	\$25.00
HAMPSHIRE.		
Plainfield,	Massachusetts	\$5.00
Williamsburg,	New England	3.00
MIDDLESEX.		
Acton,	Massachusetts	\$1.40
Chelmsford,	The United States	2.00
Dunstable,	Massachusetts	2.00— 2.60
Littleton,	Massachusetts	1.50
LOWELL,	Massachusetts	1.40
Marlborough,	Massachusetts	2.00
Sherborn,	The United States and Foreign Countries	5.50
SUFFOLK.		
BOSTON,	New England	\$1.50— \$5.00
WORCESTER.		
Bolton,	Massachusetts	\$2.00
Mendon,	Massachusetts	2.00
Royalston,	Massachusetts	1.40
Shrewsbury,	Massachusetts	3.60

LUMBER.

BERKSHIRE.		
Clarksburg,	Massachusetts	\$1.00
Dalton,	Massachusetts	1.00— 2.00
Florida,	Massachusetts	1.50

Cost per Ton for Transportation — Continued.

LUMBER — Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BERKSHIRE — Con.		
Great Barrington,	Massachusetts	\$2.50
Monterey,	Massachusetts	1.50
New Marlborough,	Massachusetts	1.25— 5.00
Otis,	Massachusetts	1.75— 14.00
Pittsfield,	Massachusetts	0.50
Sandisfield,	New England	2.50
Stockbridge,	Massachusetts	0.75— 2.00
Tyringham,	Massachusetts	1.00
Windsor,	Massachusetts	5.00
BRISTOL.		
Acushnet,	Middle	*—
Dartmouth,	Middle	\$3.00
Freetown,	Massachusetts	0.38 per mile
	Middle	1.25
NEW BEDFORD,	Massachusetts and Middle	2.25
Norton,	Middle	1.50
ESSEX.		
Boxford,	Massachusetts	\$1.00
Georgetown,	Massachusetts	1.00
Merrimac,	Massachusetts	1.00
Rowley,	Massachusetts	2.00
FRANKLIN.		
Ashfield,	Massachusetts	\$2.00
Charlemont,	Massachusetts	0.75— 3.00
Colrain,	Massachusetts	2.50 per M ft.
Hawley,	Massachusetts	2.50— 4.00
Shutesbury,	Massachusetts	3.00
	The United States	1.50
Warwick,	Massachusetts and other New England	1.00— 1.50
Wendell,	Massachusetts	1.00
HAMPDEN.		
Granville,	Massachusetts	\$2.50
Ludlow,	Massachusetts	1.00
Tolland,	New England	2.00
HAMPSHIRE.		
Amherst,	The United States	\$1.50— \$4.00
Belchertown,	Massachusetts	1.50
Plainfield,	Massachusetts	7.50
Southampton,	Massachusetts	1.00— 1.50
Westhampton,	Massachusetts	1.25
Williamsburg,	Massachusetts	0.75
Worthington,	Massachusetts	4.00
	New England	4.00
MIDDLESEX.		
LOWELL,	New England	\$2.00
Sherborn,	Massachusetts	1.00
Stow,	Massachusetts	2.00
NORFOLK.		
Franklin,	Massachusetts and other New England	\$0.50
PLYMOUTH.		
Carver,	Massachusetts	\$0.75
Halifax,	Massachusetts	2.00
Hanover,	Massachusetts	0.75— 1.25
Hanson,	Massachusetts	1.00
Kingston,	Massachusetts	1.25
Lakeville,	Middle	3.00
Marshfield,	Massachusetts	2.00 per cord
Mattapoissett,	Massachusetts and Middle	1.25— 2.25

* \$0.75—\$1.25 per M feet.

Cost per Ton for Transportation—Continued.

LUMBER—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
PLYMOUTH—Con.		
Middleborough, . . .	Massachusetts	\$1.50
Pembroke,	Massachusetts	1.25— 1.50
Plympton,	Massachusetts	1.25
Rochester,	Massachusetts	1.75
	Middle	1.00— 2.00
SUFFOLK.		
Boston,	The United States	\$7.00
Chelsea,	The United States	6.00
WORCESTER.		
Barre,	Massachusetts	\$0.40—\$12.00
Berlin,	Massachusetts	1.25
Bolton,	Massachusetts	1.00
Gardner,	Massachusetts	0.50
Hubbardston,	Massachusetts	1.00— 2.00
Leicester,	Massachusetts	1.50
Lunenburg,	Massachusetts	2.00
North Brookfield,	Massachusetts	3.00
Oakham,	Massachusetts	1.00— 4.00
Phillipston,	Massachusetts	1.00
Royalston,	Massachusetts	1.50— 2.00
Rutland,	Massachusetts	2.00
Spencer,	Massachusetts	0.75
Upton,	Massachusetts	1.25
Uxbridge,	Massachusetts and other New England	1.00
West Brookfield,	Massachusetts	1.00

MACHINES AND MACHINERY.

BERKSHIRE.		
Lee,	New England and Western	\$3.60
	The United States	2.80— 3.60
New Marlborough,	Massachusetts	1.25
North Adams,	Massachusetts	1.50
West Stockbridge,	The United States and Foreign Countries	3.60
Windsor,	The United States	4.00
BRISTOL.		
Fairhaven,	Massachusetts	\$2.20
Fall River,	Massachusetts	1.00
	Massachusetts and other New England	1.00
	The United States	3.80— 6.00
Mansfield,	Massachusetts	2.50
Taunton,	The United States	1.60
ESSEX.		
Lawrence,	Massachusetts	\$25.00
	New England	1.60— 4.00
Lynn,	Massachusetts	1.50
	Massachusetts and other New England	5.00
	The United States	4.50
	The United States and Foreign Countries	2.00
Salem,	Massachusetts	3.00
	Massachusetts and Western	2.50
FRANKLIN.		
Montague,	New England	\$3.00
HAMPDEN.		
Brimfield,	Massachusetts	\$3.00
Chicopee,	Massachusetts	1.50
Springfield,	New England	4.00— 34.00
	The United States	6.00
	The United States and Foreign Countries	1.00— 20.00
Westfield,	The United States	4.50

Cost per Ton for Transportation—Continued.

MACHINES AND MACHINERY—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPSHIRE.		
NORTHAMPTON, . . .	The United States	\$7.00
Worthington, . . .	The United States	6.40
MIDDLESEX.		
Hudson,	Massachusetts	\$2.30
LOWELL,	Middle	4.00
NEWTON,	The United States	1.80— 5.00
Pepperell,	New England and Southern	1.50— 10.00
WALTHAM,	New England and Middle	3.00
Watertown,	The United States	10.00
	Massachusetts	2.00
NORFOLK.		
Franklin,	The United States	\$3.00
Hyde Park,	The United States	6.00
Needham,	New England	2.50
	New England, Middle, and Western	10.00
Wellesley,	Massachusetts	2.40
PLYMOUTH.		
Bridgewater,	Southern	\$20.00
BROCKTON,	Massachusetts	13.00
Pembroke,	New England	12.00
Plymouth,	The United States	6.00
Rockland,	Massachusetts	1.50
SUFFOLK.		
BOSTON,	The United States	\$1.00—\$60.00
WORCESTER.		
Athol,	The United States and Foreign Countries	\$5.00
FITCHBURG,	The United States	5.00
Leicester,	The United States	2.00— 5.00
	The United States and Foreign Countries	2.00
Leominster,	The United States	5.00
Mendon,	Massachusetts	2.80
Milford,	Massachusetts	1.50
	The United States	3.00— 20.00
Winchendon,	The United States	6.00
WORCESTER,	The United States	3.00— 5.00

METALS AND METALLIC GOODS.

BERKSHIRE.		
Adams,	New England	\$0.60
Lanesborough,	New England and Western	0.70
Lee,	Massachusetts	5.00
	The United States	2.00
New Marlborough,	Massachusetts	1.25
Pittsfield,	Massachusetts, other New England, and Middle	2.00
	The United States	3.60
Richmond,	New England and Western	2.00— 6.00
Windsor,	Western	4.00
BRISTOL.		
Attleborough,	Massachusetts and Middle	\$15.00
	Massachusetts and Western	2.00
	Middle	70.00
	Middle and Western	3.00
	The United States and Foreign Countries	30.00
Easton,	The United States	1.20— 10.00
FALL RIVER,	The United States	1.00
Mansfield,	Massachusetts	1.00

Cost per Ton for Transportation—Continued.

METALS AND METALLIC GOODS—Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BRISTOL—Con.		
NEW BEDFORD, . . .	New England and Middle	\$2.24
	Middle and Western	10.00
	The United States	3.00
	The United States and Foreign Countries	3.00— 4.00
Somerset,	New England	1.20
	New England and Middle	1.60
TAUNTON,	Massachusetts and Middle	2.40— 3.00
	New England	1.60— 2.00
	Middle and Western	6.00
	The United States	1.60— 4.00
ESSEX.		
Danvers,	Massachusetts	\$1.00
GLOUCESTER,	New England, Middle, and Southern	1.00
HAVERHILL,	The United States	2.00
LYNN,	The United States	6.00
Manchester,	Massachusetts	0.75
Rockport,	New England, Middle, Western, and Southern	5.00
SALEM,	Massachusetts	1.20— 1.50
FRANKLIN.		
Greenfield,	The United States	\$44.00
Montague,	The United States	4.40
Shelburne,	The United States	5.25
HAMPDEN.		
Chicopee,	The United States	\$17.00
HOLYOKE,	New England and Middle	3.00
	Southern and Western	9.00
	The United States and Foreign Countries	34.00
Palmer,	The United States	2.50
SPRINGFIELD,	New England	3.00
	New England, Middle, and Western	1.00— 3.50
	Middle	4.00
	The United States	6.00
	The United States and Foreign Countries	30.00
HAMPSHIRE.		
Cummington,	Massachusetts	\$3.00— \$5.00
	Massachusetts and Middle	2.75
	Middle	8.00
Goshen,	Massachusetts	2.00
NORTHAMPTON,	New England, Middle, Western, and Southern	10.00
	Middle	2.00— 6.20
	The United States	3.40
Williamsburg,	Middle	4.00
MIDDLESEX.		
Ayer,	Massachusetts	\$1.80
CAMBRIDGE,	Massachusetts	0.75
	New England	1.00— 12.60
Chelmsford,	Massachusetts	1.20
LOWELL,	Massachusetts	2.00
	New England	1.80
	The United States	5.00
SOMERVILLE,	Massachusetts	1.00
WALTHAM,	Massachusetts	1.75
	New England	0.75
WOBBURN,	Massachusetts	2.00
NORFOLK.		
Braintree,	New England and Middle	\$2.00— \$3.50
Canton,	New England	1.42
Hyde Park,	Middle	2.50
Medway,	The United States	2.00
Norfolk,	New England and Middle	3.00
Norwood,	Massachusetts	3.00

Cost per Ton for Transportation—Continued.

METALS AND METALLIC GOODS—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
NORFOLK—Con.		
QUINCY,	Massachusetts	\$0.25— \$1.50
Sharon,	Massachusetts and Middle	3.00
Stoughton,	Massachusetts	5.00
Walpole,	Massachusetts	3.00
Weymouth,	Massachusetts	0.70
Wrentham,	Massachusetts and Middle	5.00
	The United States	1.25
PLYMOUTH.		
Abington,	The United States	\$5.00
Bridgewater,	Massachusetts	2.50
	New England	3.00
	Middle	2.50
BROCKTON,	New England and Middle	2.00
	Western	9.40— 10.00
	The United States	5.00
Carver,	Massachusetts	4.00
Duxbury,	The United States	5.00
East Bridgewater,	New England	1.00— 2.00
Hanover,	New England	6.60
Hingham,	Massachusetts	2.25
Kingston,	Massachusetts	1.60— 2.00
	New England	5.00
	New England and Western	5.00— 7.00
	Western	4.00
Marshfield,	Massachusetts	1.20
Plymouth,	New England	1.50— 6.00
	The United States	3.00— 5.00
Rockland,	The United States	5.00
Wareham,	Massachusetts	1.20
	Massachusetts, other New England, and Middle	1.15
	New England	1.34
West Bridgewater,	The United States	1.50
Whitman,	Massachusetts	1.50
	New England	1.40— 1.50
SUFFOLK.		
BOSTON,	Massachusetts	\$0.50— \$2.00
	New England	1.00— 5.00
	New England, Middle, and Western	2.40— 4.80
	New England and Western	3.10
	The United States	10.00
	The United States and Foreign Countries	5.00— 10.00
CHELSEA,	Massachusetts	1.00
	The United States	7.00
WORCESTER.		
Athol,	The United States	\$1.50
Charlton,	Massachusetts	5.00
Clinton,	The United States	3.80— 10.00
Dudley,	Massachusetts	1.60
Milford,	The United States	1.40— 1.80
Oakham,	Massachusetts and other New England	5.00
Spencer,	New England and Middle	3.00
Winchendon,	Massachusetts, other New England, and Middle	4.00
WORCESTER,	Massachusetts	0.50— 2.00
	New England and Middle	20.00— 35.00
	The United States	3.00— 4.00
	The United States and Foreign Countries	3.00

MIXED TEXTILES.

BRISTOL.		
Attleborough,	The United States	\$4.00
HAMPDEN.		
SPRINGFIELD,	Western	\$7.00— \$10.00
	The United States and Foreign Countries	4.00

Cost per Ton for Transportation — Continued.

MIXED TEXTILES — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
MIDDLESEX.		
Concord, . . .	New England, Middle, and Western	\$4.30
LOWELL, . . .	The United States and Foreign Countries	5.00
NORFOLK.		
Franklin, . . .	Massachusetts and Middle	\$2.00—\$12.00
Norfolk, . . .	Massachusetts and Middle . . . . .		25.00
WORCESTER.		
Blackstone, . . .	Massachusetts	\$2.80

MUSICAL INSTRUMENTS AND MATERIALS.

ESSEX.		
SALEM,	Massachusetts	\$2.00
MIDDLESEX.		
CAMBRIDGE, . . .	Massachusetts and Middle	\$3.60
NORFOLK.		
Millis,	New England and Western	\$8.00
SUFFOLK.		
BOSTON,	Western	\$14.00
	The United States	12.00
	The United States and Foreign Countries	15.00
WORCESTER.		
Leominster, . . .	Middle	\$1.00
Northborough, . .	The United States and Foreign Countries	5.00
WORCESTER, . . .	New England, Middle, and Western	3.60— 10.00
	The United States and Foreign Countries	*—

* \$3.75 per 40 cubic feet to England, and \$3.00—\$8.75 per ton to New York.

OILS AND ILLUMINATING FLUIDS.

BRISTOL.		
NEW BEDFORD, . . .	Massachusetts and other New England	\$2.00
	Massachusetts, other New England, and Middle . .	2.50
	Massachusetts and Middle	2.50
	The United States and Foreign Countries	15.00
TAUNTON,	Middle	2.00
ESSEX.		
GLOUCESTER, . . .	Massachusetts	\$1.00
	Western	1.00
	The United States	5.00
WORCESTER.		
Spencer,	Massachusetts	\$2.00

PAINTS, COLORS, AND CRUDE CHEMICALS.

BRISTOL.		
Dighton,	The United States	\$2.50
NEW BEDFORD, . . .	New England	3.00
	New England, Middle, and Southern	3.00

Cost per Ton for Transportation — Continued.

PAINTS, COLORS, AND CRUDE CHEMICALS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
DUKES.		
Chilmark, . . .	New England	\$2.25
ESSEX.		
GLOUCESTER, . . .	The United States	\$1.50— \$5.00
LYNN,	The United States	2.00
Rowley,	New England	4.00
HAMPDEN.		
SPRINGFIELD, . . .	New England, Middle, and Western	\$3.00
SUFFOLK.		
CHELSEA,	Massachusetts	\$0.90
WORCESTER.		
WORCESTER,	New England and Western	\$2.50

PAPER AND PAPER GOODS.

BARNSTABLE.		
Sandwich,	The United States	\$3.00
BERKSHIRE.		
Adams,	Middle	\$6.00
Becket,	Middle	5.00
Dalton,	The United States	3.60
	The United States and Foreign Countries	3.60— 20.00
Great Barrington, . .	The United States	4.00
Lee,	Massachusetts and Middle	3.60
	Massachusetts, Middle, and Western	3.60
	Middle	3.60
Pittsfield,	The United States	3.60— 6.80
Stockbridge,	The United States	3.60
	Massachusetts	1.75
	New England and Middle	3.60
BRISTOL.		
Dighton,	New England and Middle	\$4.00
NEW BEDFORD, . . .	Massachusetts	0.50
ESSEX.		
Bradford,	Massachusetts and Middle	\$1.40
LAWRENCE,	Massachusetts	1.25
	The United States	5.00
FRANKLIN.		
Montague,	Massachusetts and Middle	\$4.00
	The United States	3.00— 4.00
Wendell,	Massachusetts and Middle	4.00
HAMPDEN.		
HOLYOKE,	Massachusetts and Middle	\$3.00— \$5.00
	New England	3.40
	New England and Middle	3.50
	Middle and Western	5.00
	Western	6.00
	The United States	3.40— 15.00
	The United States and Foreign Countries	3.40
Russell,	Middle	3.80
	The United States	3.40
SPRINGFIELD, . . .	The United States	2.40— 70.00
Westfield,	Western	5.00
	The United States and Foreign Countries	6.00
West Springfield, . .	Massachusetts and Middle	4.80
	Massachusetts, Middle, and Western	4.00
	New England and Western	5.00
	The United States	3.40

Cost per Ton for Transportation — Continued.

PAPER AND PAPER GOODS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPSHIRE.		
Amherst,	Massachusetts	\$5.00
Greenwich,	New England and Middle	4.00
Huntington,	The United States	4.00
Middlefield,	Middle	5.00
NORTHAMPTON,	Massachusetts and Middle	6.00
	Middle	3.40
South Hadley,	Middle	3.50
MIDDLESEX.		
Dracut,	Massachusetts	\$1.60
Groton,	The United States and Foreign Countries	5.00
NEWTON,	New England and Middle	2.00
	Southern	2.00
Pepperell,	The United States	2.00
Shirley,	The United States and Foreign Countries	2.50
WALTHAM,	Massachusetts and Middle	2.00
Watertown,	New England and Middle	4.50
NORFOLK.		
Braintree,	The United States	\$3.50
Dover,	New England	1.25
Medway,	Massachusetts	1.40
Norfolk,	Massachusetts and Middle	1.80
Norwood,	Massachusetts	2.00
Walpole,	Massachusetts	2.00
	The United States	5.00
Wellesley,	New England	2.00
PLYMOUTH.		
Bridgewater,	Massachusetts and Middle	\$4.00
SUFFOLK.		
BOSTON,	New England and Middle	\$2.00
	The United States	2.00
	The United States and Foreign Countries	5.00
CHELSEA,	Massachusetts	1.00
	New England and Western	1.00
WORCESTER.		
FITCHBURG,	New England and Middle	\$4.00
	The United States	5.28
Hardwick,	New England and Middle	4.00
Leominster,	Middle	4.00
Westminster,	Massachusetts and Middle	2.00
WORCESTER,	Massachusetts, Middle, and Western	10.00

POLISHES AND DRESSING.

BRISTOL.		
TAUNTON,	New England	\$5.50
ESSEX.		
Bradford,	Western	\$5.50
LYNN,	The United States and Foreign Countries	1.60
MIDDLESEX.		
Acton,	Massachusetts	\$1.60
PLYMOUTH.		
Middleborough,	Massachusetts	\$1.68

Cost per Ton for Transportation—Continued.

POLISHES AND DRESSING—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
SUFFOLK.		
BOSTON,	New England, Middle, Western, and Southern	\$2.00
	The United States	6.00
CHELSEA,	Massachusetts	1.00
WORCESTER.		
WORCESTER,	Massachusetts, Middle, and Western	\$1.80—\$5.00
	Massachusetts and Western	1.80

PRINTING, PUBLISHING, AND BOOKBINDING.

BERKSHIRE.		
Pittsfield,	The United States	*\$160.00
WORCESTER.		
Charlton,	Massachusetts	\$1.50—\$2.00

* Mail rates.

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

BERKSHIRE.		
North Adams,	Middle	\$2.40
MIDDLESEX.		
LOWELL,	Massachusetts, Middle, and Western	\$3.30
Medford,	Massachusetts	2.00

RUBBER AND ELASTIC GOODS.

ESSEX.		
Andover,	The United States	\$1.60
HAMPSHIRE.		
Easthampton,	Massachusetts and Middle	\$4.80
MIDDLESEX.		
Framingham,	The United States	\$20.00
LOWELL,	Massachusetts and Middle	20.00
MALDEN,	The United States	1.50
Reading,	The United States	5.00
PLYMOUTH.		
Hanover,	New England and Middle	\$1.20
SUFFOLK.		
BOSTON,	The United States	\$5.00—\$10.00
CHELSEA,	The United States	1.50
WORCESTER.		
WORCESTER,	Middle	\$5.00

SALT.

BRISTOL.		
Dartmouth,	Massachusetts	\$2.40

Cost per Ton for Transportation — Continued.

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BRISTOL.		
Mansfield,	New England	\$1.00

SILK AND SILK GOODS.

BERKSHIRE.		
Pittsfield,	New England and Middle	\$10.00
FRANKLIN.		
Shelburne,	Massachusetts and Middle	\$30.00
HAMPSHIRE.		
NORTHAMPTON, . . .	The United States	\$50.00
WORCESTER.		
Athol,	Massachusetts and Middle	\$20.00

SPORTING AND ATHLETIC GOODS.

HAMPSHIRE.		
Pelham,	Middle	\$6.00
MIDDLESEX.		
CAMBRIDGE,	New England, Middle, and Western	\$2.00
LOWELL,	The United States and Foreign Countries	4.00
SUFFOLK.		
BOSTON,	Middle and Western	\$1.50
WORCESTER.		
Barre,	New England	\$4.00

STONE.

BARNSTABLE.		
Wellfleet,	Massachusetts	\$2.00
BERKSHIRE.		
Adams,	Massachusetts	\$0.38
Cheshire,	Massachusetts	0.40
Great Barrington, .	Massachusetts	0.30
Lee,	Middle	4.00
Lenox,	Middle and Southern	6.00
North Adams, . . .	Massachusetts	0.75
Pittsfield,	Massachusetts	0.25
Windsor,	Massachusetts	2.50
	Massachusetts and Middle	2.50
	Middle	5.00
BRISTOL.		
Attleborough, . . .	Massachusetts	\$0.50
	Massachusetts and other New England	1.00
	The United States	5.00
Freetown,	Massachusetts and other New England	0.60
NEW BEDFORD, . . .	Massachusetts	0.50
Seekonk,	New England	0.50
TAUNTON,	Massachusetts	2.00

Cost per Ton for Transportation—Continued.

STONE—Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
ESSEX.		
GLOUCESTER, . . .	Massachusetts	\$0.60
	Massachusetts and Middle	1.00
	The United States	0.65— 4.00
HAVERHILL,	Massachusetts	1.50— 10.00
LAWRENCE,	Massachusetts	1.20
	New England	1.60
LYNN,	Massachusetts	3.00
LYNNFIELD,	Massachusetts	1.00
METHUEN,	Massachusetts	0.75
NEWEURYPORT, . . .	Massachusetts	1.00
Peabody,	Massachusetts	0.60— 0.75
Rockport,	Massachusetts	0.55— 0.65
	Massachusetts and Middle	0.50— 2.50
SALEM,	Massachusetts	0.75— 3.00
FRANKLIN.		
Erving,	Massachusetts	\$3.00
HAMPDEN.		
Chester,	Middle and Western	\$2.50— \$4.00
Chicopee,	Massachusetts and other New England	2.25
HOLYOKE,	Massachusetts	0.20— 1.70
Longmeadow,	Massachusetts and other New England	2.60
	Massachusetts, Middle, and Western	2.00
Monson,	Massachusetts	0.25
	The United States	0.40
SPRINGFIELD,	Massachusetts	2.50
	Massachusetts and Middle	18.00
	New England and Western	5.00
Westfield,	Massachusetts	2.00
HAMPSHIRE.		
Pelham,	Massachusetts	\$1.50
Ware,	Massachusetts	10.00
MIDDLESEX.		
Ashland,	Massachusetts	\$2.00
CAMBRIDGE,	Massachusetts	0.50
Frammingham,	Massachusetts	0.62
LOWELL,	Massachusetts	0.63
	Western	6.00
Medford,	Massachusetts	0.90
WALTHAM,	Massachusetts	1.50
Westford,	Massachusetts	0.35— 3.50
NORFOLK.		
Milton,	Middle	\$3.00
QUINCY,	New England and Middle	3.00
	New England, Middle, and Western	4.00— 7.00
	Middle	2.75— 5.80
	Middle and Western	3.00
	Western	1.80— 8.00
	The United States	1.50— 5.00
	The United States and Foreign Countries	3.00
Randolph,	Massachusetts	1.50
Sharon,	Massachusetts and other New England	1.35
PLYMOUTH.		
Abington,	Massachusetts	\$2.50
BROCKTON,	Massachusetts	50.00
SUFFOLK.		
BOSTON,	Massachusetts	\$1.00— \$1.50
CHELSEA,	Massachusetts	1.00
WORCESTER.		
Clinton,	Massachusetts	\$5.00
Leominster,	Massachusetts	0.50— 1.75

Cost per Ton for Transportation — Continued.

STONE — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
WORCESTER — Con.		
Milford,	Massachusetts	\$1.00— \$2.00
Northbridge,	Massachusetts and other New England	1.20
Upton,	Massachusetts	1.50
Uxbridge,	Massachusetts, other New England, and Middle The United States	1.00 1.00
West Brookfield,	Massachusetts	4.00
Winchendon,	Massachusetts and other New England	4.00
WORCESTER,	Massachusetts	0.50— 15.00
	New England	3.00

STRAW AND PALM LEAF GOODS.

HAMPDEN.		
Monson,	New England, Middle, and Western	\$14.00
HAMPSHIRE.		
Amherst,	Middle	\$7.00
MIDDLESEX.		
Holliston,	Middle	\$7.00
NORFOLK.		
Foxborough,	Middle	\$16.00
Medfield,	The United States	0.04 (cu. ft.)
PLYMOUTH.		
Middleborough,	The United States and Foreign Countries	\$0.04 (cu. ft.)
WORCESTER.		
Barre,	Massachusetts and Middle	\$6.00
Dana,	Middle	6.40
	The United States	7.00
Milford,	Massachusetts and Middle	6.80
	The United States	2.40— 5.00
Upton,	Middle	3.60
Westborough,	The United States	13.33

TALLOW, CANDLES, SOAP, AND GREASE.

BERKSHIRE.		
Pittsfield,	Massachusetts and Middle	\$4.00
BRISTOL.		
Dartmouth,	Massachusetts	\$2.50
FALL RIVER,	New England and Middle	2.00
NEW BEDFORD,	Massachusetts	2.40— 3.75
	Middle	2.00
	The United States and Foreign Countries	2.00
ESSEX.		
Bradford,	Massachusetts and other New England	\$2.00
Danvers,	Massachusetts	1.40
GLOUCESTER,	Massachusetts	2.00
HAVERHILL,	New England	2.00
Ipawich,	Massachusetts	1.00
LYNN,	Massachusetts	0.80— 1.30
	New England	2.00
Middleton,	Massachusetts	1.80
NEWEURYPORT,	Massachusetts	1.80
	The United States and Foreign Countries	5.00
Peabody,	Massachusetts	0.80

Cost per Ton for Transportation—Continued.

TALLOW, CANDLES, SOAP, AND GREASE—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPDEN.		
HOLYOKE,	Middle	\$3.00
MONSON,	Massachusetts	2.20
SPRINGFIELD,	New England, Middle, and Western	2.40
HAMPSHIRE.		
NORTHAMPTON,	Massachusetts, other New England, and Middle	\$4.00
Ware,	Massachusetts	2.00
MIDDLESEX.		
CAMBRIDGE,	New England	\$4.00
	New England and Middle	3.00
	Foreign Countries	4.50
LOWELL,	Massachusetts	1.60
Natick,	Massachusetts	1.20
WOBURN,	Massachusetts	3.00
NANTUCKET.		
Nantucket,	Massachusetts	\$3.00
NORFOLK.		
Braintree,	Massachusetts	\$3.00
Foxborough,	Massachusetts	2.20
	New England	4.00
Stoughton,	Massachusetts	1.00
PLYMOUTH.		
Kingston,	Massachusetts	\$1.60
SUFFOLK.		
BOSTON,	Massachusetts	\$2.00
	New England	1.00
	New England and Middle	5.00
WORCESTER.		
Clinton,	The United States	\$1.60
Lancaster,	Massachusetts	2.80
Milford,	New England	1.40
Warren,	Massachusetts	2.00
Webster,	Massachusetts	7.00
WORCESTER,	Massachusetts	1.00
	New England	2.00
	New England and Middle	2.00
	Middle	2.60— 3.00

TOBACCO, SNUFF, AND CIGARS.

ESSEX.		
Newbury,	New England	\$2.00— \$3.00
Saugus,	Massachusetts	3.00
HAMPDEN.		
Westfield,	New England	\$20.00
	The United States	10.00— 50.00
HAMPSHIRE.		
Plainfield,	Western	\$1.00
MIDDLESEX.		
CAMBRIDGE,	Massachusetts	\$2.20
SUFFOLK.		
BOSTON,	New England	\$2.00— \$3.00
CHELSEA,	Southern and Western	18.00

Cost per Ton for Transportation — Continued.

TOYS AND GAMES (CHILDREN'S).

COUNTIES, CITIES. AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPDEN.		
Granville, . . .	Middle	\$3.00
Southwick, . . .	New England and Middle	8.60
SPRINGFIELD, . . .	The United States	3.50
WORCESTER.		
Ashburnham, . . .	Middle	\$10.00
Gardner, . . .	New England, Middle, and Southern	5.00— 9.00
Templeton, . . .	New England, Middle, and Southern	4.00— 9.00
Winchendon, . . .	The United States and Foreign Countries	6.00

TRUNKS AND VALISES.

SUFFOLK.		
BOSTON,	New England	\$5.00

WHIPS, LASHES, AND STOCKS.

BERKSHIRE.		
New Marlborough, .	New England, Middle, and Western	\$1.50
HAMPDEN.		
Chester,	Massachusetts	\$4.00
	Massachusetts and Middle	1.50
Westfield,	Massachusetts	2.00
	New England	*25.00
	The United States	*23.00
	The United States and Foreign Countries	15.00

* Express rates.

WOODEN GOODS.

BARNSTABLE.		
Orleans,	Massachusetts	\$4.00
BERKSHIRE.		
Dalton,	Massachusetts and Middle	\$5.60
Florida,	New England	5.00
BRISTOL.		
Fairhaven,	Massachusetts and Western	\$8.00
FALL RIVER,	Middle	4.00
Mansfield,	Massachusetts	5.00— 7.00
	New England	†0.12 per doz.
NEW BEDFORD,	Massachusetts and Middle	8.00
Rehoboth,	New England	3.50
ESSEX.		
HAVERHILL,	Massachusetts	\$2.40
Ipswich,	Massachusetts	1.40
FRANKLIN.		
Hawley,	Massachusetts	\$1.50— \$3.00
Leverett,	New England	12.60
Leyden,	Massachusetts	4.00
Montague,	Massachusetts	2.00

† Baskets.

Cost per Ton for Transportation — Continued.

WOODEN GOODS — Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
HAMPDEN.		
Chester,	Massachusetts	\$1.50— \$2.00
Granville,	The United States	3.00
Tolland,	Massachusetts	3.00
HAMPSHIRE.		
Chesterfield,	New England and Middle	\$3.50
Plainfield,	Massachusetts	5.00
Westhampton,	Massachusetts, other New England, and Middle	1.00
Williamsburg,	The United States	4.50
Worthington,	Middle and Southern	7.00
MIDDLESEX.		
Acton,	Massachusetts	\$1.50— \$2.50
	Massachusetts and Middle	2.00
Ashby,	New England	2.80
Ayer,	New England and Western	4.40— 13.00
CAMBRIDGE.		
	Massachusetts	1.00
	The United States and Foreign Countries	4.00
Carlisle,	Massachusetts	2.00
Concord,	New England	1.50
Littleton,	New England	2.00
Lowell,	Massachusetts	1.80
Newton,	Massachusetts	2.00
Shirley,	Massachusetts	8.00— 10.00
Townsend,	New England	2.25
Woburn,	Massachusetts	3.00
PLYMOUTH.		
Hingham,	Massachusetts	\$5.00
Lakeville,	Massachusetts and other New England	9.00
SUFFOLK.		
Boston,	Massachusetts	\$1.00
	New England	3.00— 20.00
WORCESTER.		
Ashburnham,	Massachusetts	\$1.75
	Massachusetts and Middle	4.60
	New England	2.50
Barre,	Massachusetts	3.40
Gardner,	New England and Middle	5.00
Leominster,	Massachusetts	2.80— 4.00
	New England	12.00
Lunenburg,	Massachusetts	8.00
Milford,	Middle	5.00
Petersham,	Massachusetts	3.00
Phillipston,	Massachusetts	2.40
Royalston,	Massachusetts	1.00
Templeton,	Middle and Western	35.00
Westborough,	The United States	1.60
Winchendon,	Massachusetts and Middle	4.00
	Middle	6.00
	The United States	6.00— 8.00

WOOLLEN GOODS.

BARNSTABLE.		
Falmouth,	New England	\$2.40
BERKSHIRE.		
Adams,	Middle	\$3.00
Dalton,	Middle	4.40— 4.60
Great Barrington,	Middle	3.60

Cost per Ton for Transportation—Continued.

WOOLLEN GOODS—Continued.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
BERKSHIRE—Con.		
Hinsdale,	Middle	\$4.00
North Adams,	Middle	2.60
Pittsfield,	Massachusetts and Middle	3.60— 5.00
	Massachusetts, Middle, and Western	3.60
	New England, Middle, and Western	3.60
	Middle	3.60— 4.75
	The United States	3.60
Stockbridge,	The United States	3.60
Williamstown,	Massachusetts	3.00
BRISTOL.		
FALL RIVER,	Middle	\$4.50
NEW BEDFORD,	Middle	9.00
TAUNTON,	Middle	1.80
ESSEX.		
Andover,	Massachusetts and Middle	\$4.40
	The United States	5.85
Georgetown,	Middle	1.75
GLOUCESTER,	Middle	4.50
HAVERHILL,	Massachusetts and Middle	2.00— 4.40
LAWRENCE,	New England and Middle	4.50
Methuen,	Middle	3.44
North Andover,	Massachusetts and Middle	4.40
Peabody,	Massachusetts	2.00
Saugus,	Massachusetts	2.00
FRANKLIN.		
Conway,	Middle	\$3.00— \$3.20
HAMPDEN.		
Agawam,	Middle	\$10.00
Hampden,	Middle	4.80— 6.20
HOLYOKE,	Massachusetts and Middle	5.00
	Middle	20.00
	The United States	10.00
Monson,	Massachusetts and Middle	4.80— 13.00
	Middle	5.00
Palmer,	Massachusetts, Middle, and Western	4.00
Wales,	Massachusetts	6.00
	Middle	7.00
Wilbraham,	Middle	4.40
HAMPSHIRE.		
Enfield,	Middle	\$5.60
Middlefield,	Middle	4.00
Ware,	Middle	4.00
Williamsburg,	Middle	6.00
MIDDLESEX.		
Acton,	The United States	\$1.80
Dracut,	Massachusetts and Middle	4.40
	Middle	4.00
Framingham,	Massachusetts and Middle	2.00
Holliston,	The United States	5.00
LOWELL,	Massachusetts and Middle	1.80— 4.30
	Middle	4.00— 4.30
Maynard,	Middle	4.50
NEWTON,	New England	2.50
Stow,	Massachusetts and Middle	1.80— 5.60
Watertown,	Massachusetts and Middle	2.00— 5.00
NORFOLK.		
Bellingham,	Middle	\$4.00
	The United States	4.00
Braintree,	Massachusetts	6.00
Dedham,	Massachusetts and Middle	1.75
Franklin,	Middle	5.00
	The United States	2.50— 3.00

Cost per Ton for Transportation—Concluded.

WOOLLEN GOODS—Concluded.

COUNTIES, CITIES, AND TOWNS.	Markets: (States and Countries)	Cost per Ton for Trans- portation
NORFOLK—Con.		
Hyde Park, . . .	New England, Middle, and Western	\$3.00
	The United States	1.60— 4.80
Norwood, . . .	Massachusetts	1.60
Wellesley, . . .	The United States	2.50
Wrentham, . . .	Massachusetts	2.00
PLYMOUTH.		
Middleborough, . . .	Middle	\$7.30
Plymouth, . . .	New England, Middle, and Western	1.50— 6.00
	Middle	5.00
WORCESTER.		
Athol,	Middle	\$5.00
Auburn,	Massachusetts	1.00
Brookfield, . . .	Massachusetts and Middle	4.60
Charlton,	Middle	4.60
Douglas,	Middle	3.20
Dudley,	Middle	3.00— 4.00
FITCHBURG, . . .	Middle	4.30
Holden,	Middle	3.40— 6.00
Leicester,	Massachusetts and Middle	2.60— 4.60
	Middle	2.00— 3.20
Leominster, . . .	Massachusetts and Middle	6.00
Millbury,	Middle	6.00
	The United States	4.40
Northborough, . .	Middle	4.30— 4.50
Oxford,	New England	2.00
	Middle	4.60— 5.00
Rutland,	Massachusetts	3.20
Southborough, . .	Massachusetts, Middle, and Western	4.60
	Middle	4.60
Spencer,	Middle	5.00
Templeton,	The United States	5.00
Uxbridge,	Massachusetts	1.50
	Massachusetts and Middle	4.50
	Middle	4.50— 7.00
Webster,	Middle	4.50
West Boylston, . .	Middle	10.00
	The United States	1.60— 3.00
WORCESTER, . . .	New England	5.00
	Middle	2.00— 5.00

WORSTED GOODS.

ESSEX.		
LAWRENCE,	New England	\$1.80
	Middle	3.30— 6.80
HAMPDEN.		
HOLYOKE,	Middle	\$4.60
MIDDLESEX.		
Chelmsford,	Massachusetts	\$2.00
LOWELL,	New England	5.00
	Middle	4.30
	The United States	1.70
Westford,	Massachusetts	2.00
WORCESTER.		
FITCHBURG,	Middle	\$4.00

It is not possible to make any aggregated presentation for All Industries, but we have prepared a table which shows for

each "Market" the number of establishments reporting as to markets, and the number reporting the cost of transportation; as regards product, the value of goods made respectively by the establishments reporting as to markets and those stating cost of transportation; and, finally, the average cost per ton for transportation to each "Market."

Average Cost per Ton for Transportation to Specified Markets.

MARKETS.	ESTABLISHMENTS —		VALUE OF PRODUCT —		Average Cost per Ton for Transportation
	Reporting as to "Markets"	Reporting Cost of Transportation	in Establishments Reporting as to "Markets"	in Establishments Reporting Cost of Transportation	
Massachusetts,	4,030	813	\$75,605,305	\$31,044,171	\$4.97
Massachusetts and other New England,	130	45	2,791,086	1,261,433	2.83
Massachusetts, other New England, and Middle,	37	20	2,116,641	863,163	4.02
Massachusetts and Middle,	181	115	25,532,252	16,631,108	4.87
Massachusetts, Middle, and Western,	48	23	9,933,484	8,855,290	6.76
Massachusetts and Western,	18	8	270,995	36,397	16.26
New England,	733	220	34,902,780	12,477,548	6.06
New England and Middle,	141	57	14,088,071	5,986,993	5.43
New England, Middle, and Western,	78	28	9,536,117	3,244,876	5.49
New England, Middle, and Southern,	12	9	985,219	794,077	6.91
New England, Middle, Western, and Southern,	14	6	1,807,873	447,125	7.42
New England and Western,	72	31	9,277,674	4,142,840	4.54
New England and Southern,	12	6	857,253	576,890	7.38
Middle,	301	212	50,122,764	41,312,168	6.40
Middle and Western,	54	19	8,808,391	5,992,939	8.77
Middle, Western, and Southern,	12	5	2,827,207	2,033,763	6.36
Middle and Southern,	7	6	1,481,055	1,458,375	5.47
Western,	116	40	11,495,813	5,773,151	9.58
Southern,	40	16	4,388,000	1,820,727	6.46
Southern and Western,	112	34	18,855,780	4,976,834	6.58
The United States,	1,584	335	149,203,985	55,137,836	7.60
The United States and Foreign Countries,	199	71	28,276,905	9,941,717	11.52
Foreign Countries,	4	2	1,154,603	627,641	6.75
TOTALS,	7,935	2,121	\$464,319,253	\$215,437,082	\$6.05

The rates vary from \$2.83 per ton to \$16.26. The average for all markets is \$6.05 per ton. It should be remembered in considering these figures that the rates for transportation are affected by the kinds of goods and the distance carried, and the very low or very high rates to certain markets may be owing

to the kinds of goods manufactured by the establishments making return. In computing the average cost per ton for transportation, those establishments were omitted which did not give the cost of transportation on the "ton" basis. When a high and low cost were both given, an average of the two was arrived at and used in determining the general average. An easy way to use the table is to bear in mind that \$20 per ton is one cent per pound. Thus the average cost for transportation to cities and towns in Massachusetts was less than one-quarter of a cent a pound; to the Middle States a little less than one-third of a cent a pound; and to the Western States not quite one-half a cent a pound. The general average for all markets was less than one-third of a cent a pound.

If we return to our estimate that \$20,239,027 are paid annually by our manufacturers as freight on stock used and goods made, we see that this expenditure will move 3,345,294 tons. Considering the total value of goods made annually, \$674,634,269, this would indicate an average value of \$201.67 per ton for all kinds of manufactured goods. Of this \$201.67, the average value per ton, \$6.05, the average cost of transportation per ton, forms three per cent.

Estimating the average cost for transportation per freight car as \$120, for about twenty tons average weight, the material transported would fill 168,659 cars. If the average length per car is taken as 30 feet, a train to hold the annual product of Massachusetts manufactories would be 5,059,770 feet or more than 958 miles long.

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.]

	INDUSTRIES.	SALES NOT DECREASED	
		Estab- lishments	Value of Product
1	Agricultural implements,	17	\$1,017,899
2	Arms and ammunition,	8	441,789
3	Artificial teeth and dental work,	53	70,094
4	Artisans' tools,	55	1,872,267
5	Awnings, tents, and decorations,	5	27,505
6	Boots and shoes,	507	57,618,194
7	Boxes (paper and wooden),	65	1,435,187
8	Brick, tiles, and sewer pipe,	34	590,966
9	Brooms, brushes, and mops,	28	353,349

IMPORTS.

The inquiry used to obtain information in regard to imports read as follows: "Are sales decreased by the importation of foreign-made goods?" This question has a bearing upon the tariff; or, to reverse the proposition, the tariff has a bearing upon this question. If the tariff were so high that no goods of any kind could be imported and sold in the face of competition with domestic manufactures, such a tariff would be *prohibitive*. If some kinds of foreign-made goods can be imported and sold, notwithstanding domestic competition, such a tariff is not prohibitive, but is *protective* to a greater or less degree. To determine this *degree*, in the various manufacturing industries of the Commonwealth, was the object of this inquiry, and it is the purpose of the Bureau to confine the presentation to the tabulated answers made by the manufacturers themselves.

The answers of the manufacturers were not uniformly "Yes" or "No." Instead, they were so diverse in their nature as to render classification difficult. In the first tabular presentation, which begins on page 174, the 7,935 establishments reporting as to markets are considered. They had an annual product worth \$464,319,253, and the answers made by the 7,935 individuals, firms, or corporations, are classified, by industries, under three heads — "Sales not Decreased," "Sales Decreased," and "Effect not Stated." Under each of these heads the number of establishments is given, and also the value of annual product. The column headed "Aggregates" includes the same establishments that reported as to markets.

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.]

SALES DECREASED		EFFECT NOT STATED		AGGREGATES	
Estab- lishments	Value of Product	Estab- lishments	Value of Product	Estab- lishments	Value of Product
1	\$440	5	\$15,881	23	\$1,034,220
12	507,842	3	529,950	23	1,479,581
2	1,732	16	26,967	71	98,793
23	379,880	13	92,832	91	2,344,979
-	-	-	-	5	27,505
69	4,793,758	446	34,133,391	1,022	96,547,343
7	193,650	56	1,074,225	128	2,703,062
9	120,895	38	467,382	81	1,179,243
8	259,823	15	49,474	51	662,646

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.] — Continued.

	INDUSTRIES.	SALES NOT DECREASED	
		Estab- lishments	Value of Product
1	Building,	160	\$3,516,288
2	Burial cases, caskets, coffins, etc.,	15	418,174
3	Buttons and dress trimmings,	3	277,200
4	Carpetings,	17	2,588,168
5	Carriages and wagons,	162	2,739,816
6	Cement, kaolin, lime, and plaster,	8	96,295
7	Charcoal and kindlers,	-	-
8	Chemical preparations (compounded),	3	9,800
9	Clocks and watches,	3	72,060
10	Clothing,	205	8,380,979
11	Concrete walks, paving, etc.,	3	40,580
12	Cooking, lighting, and heating apparatus,	28	1,810,840
13	Cordage and twine,	16	2,191,988
14	Corks, bungs, and taps,	1	43,000
15	Cotton goods,	71	26,768,223
16	Cotton, woollen, and other textiles,	-	-
17	Crayons, pencils, crucibles, etc.,	4	79,010
18	Drugs and medicines,	100	1,620,663
19	Dye-stuffs,	1	98,000
20	Earthen, plaster, and stone ware,	7	273,150
21	Electrical apparatus and appliances,	14	948,185
22	Electroplating,	5	30,800
23	Emery and sand paper and cloth, etc.,	7	276,014
24	Fancy articles,	3	11,920
25	Fertilizers,	2	636,200
26	Fine arts and taxidermy,	6	16,068
27	Fireworks and matches,	2	33,364
28	Flax, hemp, and jute goods,	4	414,665
29	Food preparations,	216	18,464,271
30	Furniture,	151	6,746,405
31	Gas and residual products,	-	-
32	Glass,	2	45,091
33	Glue, isinglass, and starch,	2	76,688
34	Hair work (animal and human),	7	327,100
35	Hose: rubber, linen, etc.,	2	781,480
36	Hosiery and knit goods,	2	289,050
37	Ink, mucilage, and paste,	5	88,032
38	Ivory, bone, shell, and horn goods, etc.,	7	75,907
39	Jewelry burnishing and lapidary work,	-	-
40	Leather,	163	13,501,230
41	Linen,	-	-
42	Liquors and beverages (not spirituous),	12	186,879
43	Liquors: malt, distilled, and fermented,	37	2,139,418
44	Lumber,	71	1,146,071
45	Machines and machinery,	238	8,633,118
46	Metals and metallic goods,	408	14,132,282
47	Mixed textiles,	6	864,188
48	Models and patterns,	13	121,029

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.] — Continued.

SALES DECREASED		EFFECT NOT STATED		AGGREGATES		
Estab- lishments	Value of Product	Estab- lishments	Value of Product	Estab- lishments	Value of Product	
18	\$184,870	338	\$5,194,041	516	\$8,895,199	1
-	-	12	278,633	27	696,805	2
10	683,405	-	-	13	960,605	3
9	3,397,312	2	325	28	5,985,805	4
36	372,680	142	1,584,295	340	4,696,791	5
1	25,000	6	94,960	15	216,255	6
-	-	2	770	2	770	7
5	327,661	2	39,704	10	377,165	8
6	2,328,067	-	-	9	2,400,127	9
77	3,819,955	133	1,933,342	415	14,134,276	10
-	-	5	45,510	8	86,090	11
3	280,850	9	185,905	40	2,277,595	12
11	2,343,478	9	370,967	36	4,006,433	13
1	28,000	-	-	2	71,000	14
36	13,543,405	41	16,657,551	148	56,969,179	15
2	648,945	2	1,745,638	4	2,394,583	16
1	12,480	2	13,000	7	104,490	17
19	283,887	106	1,138,632	225	3,043,182	18
5	529,303	1	2,500	7	629,803	19
5	68,663	4	45,500	16	387,313	20
1	68,000	7	163,968	22	1,180,153	21
3	41,000	1	5,000	9	76,800	22
5	273,587	-	-	12	554,601	23
2	9,476	-	-	5	21,396	24
3	1,848,287	9	234,800	14	2,719,387	25
-	-	1	500	7	16,568	26
2	12,298	-	-	4	50,662	27
2	1,044,098	1	24,460	7	1,483,223	28
81	11,757,029	287	9,153,139	614	39,374,439	29
20	1,186,644	68	1,147,746	239	9,080,795	30
1	20,381	44	1,779,459	45	1,799,840	31
8	705,328	1	6,000	11	756,419	32
20	1,057,313	1	20,000	23	1,154,001	33
3	4,500	1	7,480	11	339,080	34
-	-	-	-	2	781,480	35
29	3,112,494	7	536,741	38	3,938,285	36
3	1,586	1	14,500	9	104,118	37
19	1,304,052	5	81,650	31	1,461,609	38
2	29,500	-	-	2	29,500	39
85	5,382,516	131	4,994,620	379	23,878,366	40
2	730,989	-	-	2	730,989	41
16	121,580	8	43,244	36	351,703	42
14	1,151,086	35	1,073,991	86	4,364,395	43
18	76,203	80	710,839	169	1,933,113	44
72	5,868,376	78	2,067,528	388	16,569,022	45
143	8,652,197	350	3,313,494	901	26,097,973	46
4	421,800	1	2,700	11	1,288,688	47
1	6,744	10	37,685	24	165,458	48

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.] — Concluded.

	INDUSTRIES.	SALES NOT DECREASED	
		Estab- lishments	Value of Product
1	Musical instruments and materials,	34	\$2,028,611
2	Oils and illuminating fluids,	9	1,025,683
3	Paints, colors, and crude chemicals,	9	242,798
4	Paper and paper goods,	61	9,651,432
5	Perfumes, toilet articles, etc.,	-	-
6	Photographs and photographic materials,	36	197,442
7	Polishes and dressing,	25	829,995
8	Printing, publishing, and bookbinding,	9	245,230
9	Print works, dye works, and bleacheries,	1	68,000
10	Railroad construction,	4	418,812
11	Rubber and elastic goods,	17	7,729,647
12	Salt,	-	-
13	Scientific instruments and appliances,	14	275,401
14	Shipbuilding,	5	1,055,012
15	Silk and silk goods,	3	1,652,640
16	Sporting and athletic goods,	11	187,916
17	Stone,	107	1,924,074
18	Straw and palm leaf goods,	10	2,032,883
19	Tallow, candles, soap, and grease,	39	1,841,867
20	Tobacco, snuff, and cigars,	62	567,364
21	Toys and games (children's),	6	128,600
22	Trunks and valises,	4	139,100
23	Whips, lashes, and stocks,	22	522,727
24	Wooden goods,	164	2,135,901
25	Woollen goods,	35	4,880,572
26	Worsted goods,	1	565,000
27	ALL INDUSTRIES,	3,682	\$224,791,046

Of the 7,935 establishments considered, 3,682, or 46.40 per cent, replied that the sales of domestic manufactures were not decreased by the importation of foreign-made goods; 1,316, or 16.59 per cent, answered that sales were decreased as the result of such importations, while 2,937 establishments, or 37.01 per cent, did not answer the inquiry with sufficient definiteness to allow the replies to be classified as either negative or affirmative.

The classification by establishments reflects the opinions entertained by the individuals, firms, or corporations as such. On the basis of value of goods made, there is a slight variation in the percentages. Those establishments of which the proprietors were of the opinion that sales of domestic manufactures were not decreased by the importation of foreign-made goods

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [7,935 Establishments.] — Concluded.

SALES DECREASED		EFFECT NOT STATED		AGGREGATES		
Estab- lishments	Value of Product	Estab- lishments	Value of Product	Estab- lishments	Value of Product	
19	\$1,862,844	8	\$602,618	61	\$4,494,073	1
4	291,025	2	228,000	15	1,544,108	2
5	455,700	—	—	14	698,498 ^a	3
34	6,602,559	20	2,738,748	115	18,992,739	4
7	402,089	—	—	7	402,089	5
2	15,700	22	52,753	60	265,895	6
7	287,993	6	56,788	38	1,174,776	7
4	223,500	12	265,300	25	737,030	8
2	5,540,646	4	266,784	7	5,875,430	9
1	38,500	3	427,241	8	884,553	10
8	1,530,171	2	2,203,330	27	11,463,148	11
1	1,430	1	600	2	2,030	12
13	317,631	4	47,173	31	640,205	13
—	—	2	8,450	7	1,063,462	14
5	671,440	2	522,500	10	2,846,580	15
3	119,750	1	500	15	308,166	16
41	968,489	96	1,556,122	244	4,448,685	17
11	2,967,431	5	429,859	26	5,430,173	18
21	653,039	31	285,203	91	2,780,109	19
65	1,011,187	42	329,556	169	1,908,107	20
3	173,807	1	6,000	10	308,407	21
1	9,000	4	70,388	9	218,488	22
6	54,146	10	156,400	38	733,273	23
18	408,152	87	865,168	269	3,409,221	24
85	21,614,108	35	3,732,910	155	30,227,590	25
15	6,892,840	2	391,675	18	7,849,515	26
1,316	\$133,143,222	2,937	\$106,384,985	7,935	\$464,319,253	27

turned out an annual product of \$224,791,046, or 48.41 per cent of the annual product of all the establishments considered; those establishments the proprietors of which stated that sales were decreased represented an annual product of \$133,143,222, or 28.68 per cent of the total product; the proprietors who did not state definitely the effect of such importations, made in their establishments, during the year, goods valued at \$106,384,985, or 22.91 per cent of the total annual product of all establishments considered.

Judging from these figures, the proprietors of the greatest number of establishments, representing the greatest proportion of annual product, evidently consider that the present tariff is sufficiently protective in its operations to prevent any appreciable decrease in the sales of domestic manufactures from the

importation of foreign-made goods. On the other hand, quite a number of proprietors, in certain industries, seem to think that their sales are decreased by such importations.

We next present a similar table in which we include the 23,431 establishments engaged in manufacturing and mechanical industries during the Census year 1885, instead of the 7,935 estab-

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [23,431 Establishments.]

	INDUSTRIES.	SALES NOT DECREASED	
		Estab-lish-ments	Value of Product
1	Agricultural implements,	17	\$1,017,899
2	Arms and ammunition,	8	441,789
3	Artificial teeth and dental work,	53	70,094
4	Artisans' tools,	55	1,872,267
5	Awnings, tents, and decorations,	5	27,505
6	Boots and shoes,	507	57,618,194
7	Boxes (paper and wooden),	65	1,435,187
8	Brick, tiles, and sewer pipe,	34	590,966
9	Brooms, brushes, and mops,	28	353,349
10	Building,	160	3,516,288
11	Burial cases, caskets, coffins, etc.,	15	418,174
12	Buttons and dress trimmings,	3	277,200
13	Carpetings,	17	2,588,168
14	Carriages and wagons,	162	2,739,816
15	Cement, kaolin, lime, and plaster,	8	96,295
16	Charcoal and kindlers,	-	-
17	Chemical preparations (compounded),	3	9,800
18	Clocks and watches,	3	72,060
19	Clothing,	205	8,380,979
20	Concrete walks, paving, etc.,	3	40,580
21	Cooking, lighting, and heating apparatus,	28	1,810,840
22	Cordage and twine,	16	2,191,988
23	Corks, bungs, and taps,	1	43,000
24	Cotton goods,	71	26,768,223
25	Cotton, woollen, and other textiles,	-	-
26	Crayons, pencils, crucibles, etc.,	4	79,010
27	Drugs and medicines,	100	1,620,663
28	Dyestuffs,	1	98,000
29	Earthen, plaster, and stone ware,	7	273,150
30	Electrical apparatus and appliances,	14	948,185
31	Electroplating,	5	30,800
32	Emery and sand paper and cloth, etc.,	7	276,014
33	Fancy articles,	3	11,920
34	Fertilizers,	2	636,300
35	Fine arts and taxidermy,	6	16,068
36	Fireworks and matches,	2	38,364
37	Flax, hemp, and jute goods,	4	414,665
38	Food preparations,	246	18,464,271

lishments reporting as to markets which were considered in the first presentation. The result is to add 15,496 establishments with an annual product worth \$210,315,016 to the column headed "Effect not Stated," thus giving this column a greater comparative percentage and reducing the two other columns proportionally.

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [23,431 Establishments.]

SALES DECREASED		EFFECT NOT STATED		STATE AGGREGATES		Classification of Prevailing Answers (as regards Product)	
Estab- lish- ments	Value of Product	Estab- lish- ments	Value of Product	Estab- lish- ments	Value of Product		
1	\$440	12	\$306,258	30	\$1,324,597	Sales not decreased	1
12	507,842	20	1,109,248	40	2,058,879	Effect not stated	2
2	1,732	434	580,031	489	651,857	Effect not stated	3
23	379,880	62	256,960	140	2,509,107	Sales not decreased	4
-	-	9	81,074	14	103,579	Effect not stated	5
69	4,795,758	1,790	52,315,581	2,366	114,729,533	Sales not decreased	6
7	193,650	143	2,703,668	215	4,332,505	Effect not stated	7
9	120,895	71	830,018	114	1,541,879	Effect not stated	8
8	259,823	36	752,201	72	1,365,373	Effect not stated	9
18	184,870	3,595	36,100,087	3,773	39,801,245	Effect not stated	10
-	-	98	352,159	113	770,323	Sales not decreased	11
10	683,405	3	55,548	16	1,016,153	Sales decreased	12
9	3,397,312	20	550,861	46	6,536,341	Sales decreased	13
36	372,680	815	4,165,437	1,013	7,277,923	Effect not stated	14
1	25,000	7	118,580	16	239,875	Effect not stated	15
-	-	11	11,480	11	11,480	Effect not stated	16
5	327,661	15	827,673	23	1,165,134	Effect not stated	17
6	2,328,067	38	925,072	47	3,325,199	Sales decreased	18
77	3,819,955	2,120	20,458,903	2,402	32,659,837	Effect not stated	19
-	-	17	110,218	20	150,798	Effect not stated	20
3	280,850	34	1,039,892	65	3,131,532	Sales not decreased	21
11	2,343,478	25	541,795	52	5,077,261	Sales decreased	22
1	28,000	2	73,000	4	144,000	Effect not stated	23
36	13,543,405	58	21,113,469	165	61,425,097	Sales not decreased	24
2	648,945	2	1,745,638	4	2,394,583	Effect not stated	25
1	12,480	2	13,000	7	104,490	Sales not decreased	26
19	283,887	797	2,818,288	916	4,722,838	Effect not stated	27
5	529,303	3	162,670	9	789,973	Sales decreased	28
5	68,663	10	91,400	22	433,213	Sales not decreased	29
1	68,000	25	381,552	40	1,397,737	Sales not decreased	30
3	41,000	27	142,707	35	214,507	Effect not stated	31
5	278,587	1	11,500	13	566,101	Sales decreased	32
2	9,476	13	60,585	18	81,931	Effect not stated	33
3	1,848,287	12	294,400	17	2,778,987	Sales decreased	34
-	-	17	26,056	23	42,124	Effect not stated	35
2	12,298	1	40,548	5	91,210	Effect not stated	36
2	1,044,098	3	34,860	9	1,493,623	Sales decreased	37
81	11,757,029	1,384	50,267,029	1,711	80,488,329	Effect not stated	38

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [23,431 Establishments] — Concluded.

	INDUSTRIES.	SALES NOT DECREASED	
		Estab-lish-ments	Value of Product
1	Furniture,	151	\$6,746,405
2	Gas and residual products,	-	-
3	Glass,	2	45,091
4	Glue, isinglass, and starch,	2	76,688
5	Hair work—animal and human/,	7	327,100
6	Hose: rubber, linen, etc.,	2	781,480
7	Hosiery and knit goods,	2	289,050
8	Ink, mucilage, and paste,	5	88,032
9	Ivory, bone, shell, and horn goods, etc.,	7	75,907
10	Jewelry burnishing and lapidary work,	-	-
11	Leather,	163	13,501,230
12	Linen,	-	-
13	Liquors and beverages (not spirituous),	12	186,879
14	Liquors: malt, distilled, and fermented,	37	2,139,318
15	Lumber,	71	1,146,071
16	Machines and machinery,	238	8,633,118
17	Metals and metallic goods,	408	14,132,282
18	Mixed textiles,	6	864,188
19	Models and patterns,	13	121,029
20	Musical instruments and materials,	34	2,028,611
21	Oils and illuminating fluids,	9	1,025,083
22	Paints, colors, and crude chemicals,	9	242,798
23	Paper and paper goods,	61	9,651,432
24	Perfumes, toilet articles, etc.,	-	-
25	Photographs and photographic materials,	36	197,442
26	Polishes and dressing,	25	829,995
27	Printing, publishing, and bookbinding,	9	248,230
28	Print works, dye works, and bleacheries,	1	68,000
29	Railroad construction,	4	418,812
30	Rubber and elastic goods,	17	7,729,647
31	Salt,	-	-
32	Scientific instruments and appliances,	14	275,401
33	Shipbuilding,	5	1,055,012
34	Silk and silk goods,	3	1,652,640
35	Sporting and athletic goods,	11	187,916
36	Stone,	107	1,924,074
37	Straw and palm leaf goods,	10	2,032,883
38	Tallow, candles, soap, and grease,	39	1,841,867
39	Tobacco, snuff, and cigars,	62	567,364
40	Toys and games (children's),	6	128,600
41	Trunks and valises,	4	139,100
42	Whips, lashes, and stocks,	22	522,727
43	Wooden goods,	164	2,135,901
44	Woollen goods,	35	4,880,572
45	Worsted goods,	1	565,000
46	ALL INDUSTRIES,	3,682	\$224,791,046

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. [23,431 Establishments.] — Concluded.

SALES DECREASED		EFFECT NOT STATED		STATE AGGREGATES		Classification of Prevailing Answers (as regards Product)	
Estab-lish-ments	Value of Product	Estab-lish-ments	Value of Product	Estab-lish-ments	Value of Product		
20	\$1,186,644	432	\$4,783,859	603	\$12,716,908	Sales not decreased	1
1	20,381	65	4,553,581	66	4,573,962	Effect not stated	2
8	705,328	10	341,530	20	1,091,949	Sales decreased	3
20	1,057,313	7	172,330	29	1,306,331	Sales decreased	4
3	4,300	45	110,463	55	442,063	Sales not decreased	5
-	-	1	9,000	3	790,480	Sales not decreased	6
29	3,112,494	29	794,978	60	4,196,522	Sales decreased	7
3	1,586	12	42,008	20	131,626	Sales not decreased	8
19	1,304,052	13	248,454	39	1,628,413	Sales decreased	9
2	29,500	5	18,000	7	47,500	Sales decreased	10
85	5,382,516	451	9,125,105	69	23,008,851	Sales not decreased	11
2	730,989	1	337,500	3	1,068,489	Sales decreased	12
16	121,580	35	332,757	63	641,216	Effect not stated	13
14	1,151,086	167	4,590,836	218	7,881,240	Effect not stated	14
18	76,203	377	2,405,071	466	3,627,345	Effect not stated	15
72	5,868,576	312	5,864,476	622	20,365,970	Sales not decreased	16
143	8,652,197	2,181	18,547,526	2,732	41,332,005	Effect not stated	17
4	421,800	3	37,873	13	1,323,861	Sales not decreased	18
1	6,744	37	130,469	51	258,242	Effect not stated	19
19	1,862,844	40	2,253,553	93	6,145,008	Effect not stated	20
4	291,025	15	978,823	28	2,294,931	Sales not decreased	21
5	455,700	8	64,536	22	763,034	Sales decreased	22
34	6,602,559	53	4,969,635	148	21,223,626	Sales not decreased	23
7	402,089	3	7,712	10	409,801	Sales decreased	24
2	15,700	203	723,023	241	936,165	Effect not stated	25
7	287,993	33	670,424	65	1,788,412	Sales not decreased	26
4	223,500	699	16,080,745	712	16,552,475	Effect not stated	27
2	5,540,646	93	10,272,197	96	15,880,843	Effect not stated	28
1	38,500	10	1,700,912	15	2,158,224	Effect not stated	29
8	1,530,171	16	3,378,923	41	12,638,741	Sales not decreased	30
1	1,430	4	45,460	5	46,890	Effect not stated	31
13	317,631	38	634,651	65	1,227,683	Effect not stated	32
-	-	274	1,052,974	279	2,107,986	Sales not decreased	33
5	671,440	4	1,177,160	12	3,501,240	Sales not decreased	34
3	119,750	13	772,300	27	1,079,966	Effect not stated	35
41	963,489	230	2,616,006	378	5,508,569	Effect not stated	36
11	2,967,431	26	1,264,973	47	6,265,287	Sales decreased	37
21	653,039	95	979,984	155	3,474,890	Sales not decreased	38
65	1,011,187	175	1,234,533	302	2,813,084	Effect not stated	39
3	173,807	6	14,488	15	316,895	Sales decreased	40
1	9,000	20	198,620	25	346,720	Effect not stated	41
6	54,146	32	475,528	60	1,052,401	Sales not decreased	42
18	408,152	352	2,223,673	534	4,767,726	Effect not stated	43
85	21,614,108	69	5,253,598	189	31,748,278	Sales decreased	44
15	6,892,840	7	3,740,308	23	11,198,148	Sales decreased	45
1,316	\$133,143,222	18,433	\$316,700,001	23,431	\$674,634,269	Effect not stated	46

This table may be most effectually analyzed as follows :

CLASSIFICATION OF REPLIES.	ESTABLISHMENTS		VALUE OF PRODUCT	
	Number	Percent-ages	Amount	Percent-ages
Sales not decreased,	3,682	15.71	\$224,791,046	33.32
Sales decreased,	1,316	5.62	133,143,222	19.74
Effect not stated,	18,433	78.67	316,700,001	46.94
TOTALS,	23,431	100.00	\$674,634,269	100.00

Upon this basis, that is, considering all establishments and total product for the Census year 1885, "sales not decreased" is represented by 15.71 per cent of the establishments and 33.32 per cent of product: "sales decreased" by 5.62 per cent of the establishments and 19.74 per cent of the product; and "effect not stated" by 78.67 per cent of the establishments and 46.94 per cent of the product.

The last column in the table for 23,431 establishments contains a "classification of prevailing answers (as regards product)." Of the 83 industries, there are 24 in which the largest value of product is classified under "sales not decreased," 20 in which it is classified under "sales decreased," and 39 come under the head "effect not stated."

The 24 industries classified under "Sales not Decreased" are given below. They are thus classified, because, in each of the industries included, the establishments which report that sales were not decreased represent the greatest value of product.

Agricultural Implements.
 Artisans' Tools.
 Boots and Shoes.
 Burial Cases, Caskets, Coffins, etc.
 Cooking, Lighting, and Heating Apparatus.
 Cotton Goods.
 Crayons, Pencils, Crucibles, etc.
 Earthen, Plaster, and Stone Ware.
 Electrical Apparatus and Appliances.
 Furniture.
 Hair Work (Animal and Human).

Hose: Rubber, Linen, etc.
 Ink, Mucilage, and Paste.
 Leather.
 Machines and Machinery.
 Mixed Textiles.
 Oils and Illuminating Fluids.
 Paper and Paper Goods.
 Polishes and Dressing.
 Rubber and Elastic Goods.
 Shipbuilding.
 Silk and Silk Goods.
 Tallow, Candles, Soap, and Grease.
 Whips, Lashes, and Stocks.

The replies for these 24 industries are classified in the following table, and are given in combination with number of establishments, value of product, and percentages :

Aggregates for Industries Reporting "Sales not Decreased."

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	1,471	\$146,055,898	25.58	49.06
Sales decreased,	411	42,105,271	7.15	14.15
Effect not stated,	3,869	109,526,506	67.27	36.79
TOTALS,	5,751	\$297,687,675	100.00	100.00

The 24 industries, aggregated in the above table, are considered as reporting sales as not being decreased because, as previously stated, the greatest value of product is for the establishments, the proprietors of which replied in that way. The 1,471 establishments represented 49.06 per cent of the product in all the establishments considered, but there were 411 establishments, with 14.15 per cent of the total product, that reported a decrease in sales.

The 20 industries classified under "Sales Decreased" are next presented. They are thus classified, because, in each of the industries included, the establishments that report a decrease in sales represent the greatest value of product.

Buttons and Dress Trimmings.	Ivory, Bone, Shell, and Horn Goods, etc.
Carpetings.	Jewelry Burnishing and Lapidary Work.
Clocks and Watches.	Linen.
Cordage and Twine.	Paints, Colors, and Crude Chemicals.
Dyestuffs.	Perfumes, Toilet Articles, etc.
Emery and Sand Paper and Cloth, etc.	Straw and Palm Leaf Goods.
Fertilizers.	Toys and Games (Children's).
Flax, Hemp, and Jute Goods.	Woollen Goods.
Glass.	Worsted Goods.
Glue, Isinglass, and Starch.	
Hosiery and Knit Goods.	

The replies for the 20 industries reporting "Sales Decreased" are classified, and the number of establishments, value of product, and percentages are given in the following table :

Aggregates for Industries Reporting "Sales Decreased."

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	127	\$14,890,984	18.87	18.24
Sales decreased,	257	51,898,188	38.19	63.58
Effect not stated,	289	14,835,113	42.94	18.18
TOTALS,	673	\$81,624,285	100.00	100.00

We see that for 257 establishments, representing 63.58 per cent of the product of all establishments considered, a decrease in sales was reported owing to the importation of foreign-made goods: there were, however, 127 establishments, with 18.24 per cent of the total product, for which it was reported that there was no decrease in sales on account of foreign importations.

In order to bring out the facts for each industry reporting a decrease in sales we make special presentations for each of the 20 industries, following each presentation with a brief consideration of results, and, at the end, a classification which shows the percentages of the total value of annual product turned out by the industries under consideration.

BUTTONS AND DRESS TRIMMINGS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	3	\$277,200	18.75	27.28
Sales decreased,	10	683,405	62.50	67.25
Effect not stated,	3	55,548	18.75	5.47
TOTALS,	16	\$1,016,153	100.00	100.00

For 18.75 per cent of the establishments, having 27.28 per cent of the total product in the industry, the proprietors report that sales are not decreased by the importation of foreign-made goods, while in 62.50 per cent of the establishments, representing 67.25 per cent of total product, the proprietors state that sales are decreased by such foreign importations.

CARPETINGS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	17	\$2,588,168	36.96	39.60
Sales decreased,	9	3,397,312	19.56	51.97
Effect not stated,	20	550,861	43.48	8.43
TOTALS,	46	\$6,536,341	100.00	100.00

The proprietors of 36.96 per cent of the establishments, having 39.60 per cent of the total product in the industry, report no decrease in sales, while the proprietors of 19.56 per cent of the establishments, turning out 51.97 per cent of the total product, state that their sales are decreased.

CLOCKS AND WATCHES.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	3	\$72,060	6.38	2.17
Sales decreased,	6	2,328,067	12.77	70.01
Effect not stated,	38	925,072	80.85	27.82
TOTALS,	47	\$3,325,199	100.00	100.00

In this industry the proprietors of 12.77 per cent of the establishments, representing 70.01 per cent of the total product, consider that their sales are decreased.

CORDAGE AND TWINE.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	16	\$2,191,988	30.77	43.17
Sales decreased,	11	2,343,478	21.15	46.16
Effect not stated,	25	541,795	48.08	10.67
TOTALS,	52	\$5,077,261	100.00	100.00

Opinion seems to be about equally divided in this industry, for the proprietors of 30.77 per cent of the establishments, with 43.17 per cent of the total product, consider that their sales are not decreased, while the owners of 21.15 per cent of

the establishments, having 46.16 per cent of the total product, report a decrease in sales.

DYESTUFFS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	1	\$98,000	11.11	12.41
Sales decreased,	5	529,303	55.56	67.00
Effect not stated,	3	162,670	33.33	20.59
TOTALS,	9	\$789,973	100.00	100.00

That the importation of foreign-made goods causes a decrease in the sale of the domestic articles is the prevailing opinion in this industry, the proprietors of 55.56 per cent of the establishments, which turn out 67 per cent of the total product in the industry, making statements to that effect.

EMERY AND SAND PAPER AND CLOTH, ETC.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	7	\$276,014	53.85	48.76
Sales decreased,	5	278,587	38.46	49.21
Effect not stated,	1	11,500	7.69	2.03
TOTALS,	13	\$566,101	100.00	100.00

The manufacturers in this industry made very full replies, and are about evenly divided in opinion. Those proprietors who made 48.76 per cent of the goods think sales are not decreased, while those who turned out 49.21 per cent of the total product consider that sales are decreased by foreign importations.

FERTILIZERS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	2	\$636,300	11.76	22.90
Sales decreased,	3	1,848,287	17.65	66.51
Effect not stated,	12	294,400	70.59	10.59
TOTALS,	17	\$2,778,987	100.00	100.00

The proprietors of 11.76 per cent of the establishments, with 22.90 per cent of the total product, report no decrease in sales, while in 17.65 per cent of the establishments, with 66.51 per cent of the total product, the proprietors consider that sales are decreased.

FLAX, HEMP, AND JUTE GOODS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	4	\$414,665	41.45	27.76
Sales decreased,	2	1,044,098	22.22	69.90
Effect not stated,	3	34,860	33.33	2.34
TOTALS,	9	\$1,493,623	100.00	100.00

The manufacturers engaged in this industry, in 22.22 per cent of the establishments, turning out 69.90 per cent of the total product, consider that sales are decreased as a result of the importation of foreign-made goods.

GLASS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	2	\$45,091	10.00	4.13
Sales decreased,	8	705,328	40.00	64.59
Effect not stated,	10	341,530	50.00	31.28
TOTALS,	20	\$1,091,949	100.00	100.00

In this industry, the owners of 40 per cent of the establishments, with 64.59 per cent of the total product, report that sales are decreased.

GLUE, ISINGLASS, AND STARCH.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	2	\$76,688	6.90	5.87
Sales decreased,	20	1,057,313	68.96	80.94
Effect not stated,	7	172,330	24.14	13.19
TOTALS,	29	\$1,306,331	100.00	100.00

This industry is evidently subject to strong competition with imported goods, for the proprietors of 68.96 per cent of the establishments, having 80.94 per cent of the total product, state that sales are decreased by the importation of foreign-made goods.

HOSIERY AND KNIT GOODS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	2	\$289,050	3.34	6.89
Sales decreased,	29	3,112,494	48.33	74.17
Effect not stated,	29	794,978	48.33	18.94
TOTALS,	60	\$4,196,522	100.00	100.00

The proprietors of 48.33 per cent of the establishments, turning out 74.17 per cent of the total product, report a decrease in sales due to foreign importations.

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	7	\$75,907	17.95	4.66
Sales decreased,	19	1,304,052	48.72	80.08
Effect not stated,	13	248,454	33.33	15.26
TOTALS,	39	\$1,628,413	100.00	100.00

The general opinion among manufacturers in this industry is that sales are decreased by the importation of foreign-made goods, as the proprietors of 48.72 per cent of the establishments, representing 80.08 per cent of the total product, make statements to that effect.

JEWELRY BURNISHING AND LAPIDARY WORK.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	-	-	-	-
Sales decreased,	2	\$29,500	28.57	62.11
Effect not stated,	5	18,000	71.43	37.89
TOTALS,	7	\$47,500	100.00	100.00

The owners of 28.57 per cent of the establishments, representing 62.11 per cent of all the work done, consider that their business is decreased as the result of foreign competition.

LINEN.

CLASSIFICATION OF REPLIES.	Estab-lish-ments	Value of Product	PERCENTAGES	
			Estab-lishments	Product
Sales not decreased,	-	-	-	-
Sales decreased,	2	\$730,989	66.67	68.41
Effect not stated,	1	337,500	33.33	31.59
TOTALS,	3	\$1,068,489	100.00	100.00

The proprietors of two-thirds of the establishments, making more than two-thirds of the total product, consider that sales are decreased.

PAINTS, COLORS, AND CRUDE CHEMICALS.

CLASSIFICATION OF REPLIES.	Estab-lish-ments	Value of Product	PERCENTAGES	
			Estab-lishments	Product
Sales not decreased,	9	\$242,798	40.91	31.82
Sales decreased,	5	455,700	22.73	59.72
Effect not stated,	8	64,536	36.36	8.46
TOTALS,	22	\$763,034	100.00	100.00

The proprietors of 40.91 per cent of the establishments, with 31.82 per cent of the total product, report no decrease in sales, while the owners of 22.73 per cent of the establishments, having 59.72 per cent of the total product, report a decrease in sales.

PERFUMES, TOILET ARTICLES, ETC.

CLASSIFICATION OF REPLIES.	Estab-lish-ments	Value of Product	PERCENTAGES	
			Estab-lishments	Product
Sales not decreased,	-	-	-	-
Sales decreased,	7	\$402,089	70.00	98.12
Effect not stated,	3	7,712	30.00	1.88
TOTALS,	10	\$409,801	100.00	100.00

This industry undergoes a strong foreign competition, for the proprietors of 70 per cent of the establishments, with 98.12

per cent of the total product, report that sales are decreased by the importation of foreign-made goods.

STRAW AND PALM LEAF GOODS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	10	\$2,032,883	21.28	32.45
Sales decreased,	11	2,967,431	23.40	47.36
Effect not stated,	26	1,264,973	55.32	20.19
TOTALS,	47	\$6,265,287	100.00	100.00

There is nearly an equal division of opinion among the manufacturers in this industry. The proprietors of 21.28 per cent of the establishments, with 32.45 per cent of the total product, report no decrease in sales, while the proprietors of 23.40 per cent of the establishments, representing 47.36 per cent of the total product, consider that their sales are reduced.

TOYS AND GAMES (CHILDREN'S).

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	6	\$128,600	40.00	40.58
Sales decreased,	3	173,807	20.00	54.85
Effect not stated,	6	14,488	40.00	4.57
TOTALS,	15	\$316,895	100.00	100.00

The proprietors of one-fifth of the establishments, making more than one-half of the total product, report that sales are decreased by the importation of foreign-made goods.

WOOLLEN GOODS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	35	\$4,880,572	18.52	15.37
Sales decreased,	85	21,614,108	44.97	68.08
Effect not stated,	69	5,253,598	36.51	16.55
TOTALS,	189	\$31,748,278	100.00	100.00

The proprietors of 18.52 per cent of the establishments, with 15.37 per cent of the total product, report no decrease in sales, while the proprietors of 44.97 per cent of the establishments, having 68.08 per cent of the total product, state that sales are decreased by the importation of foreign-made goods.

WORSTED GOODS.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	1	\$565,000	4.35	5.05
Sales decreased,	15	6,892,840	65.22	61.55
Effect not stated,	7	3,740,308	30.43	33.40
TOTALS,	23	\$11,198,148	100.00	100.00

The proprietors of 65.22 per cent of the establishments, turning out 61.55 per cent of the total value of goods manufactured, report that sales are decreased by the importation of foreign-made fabrics.

Considered on the basis of product, that is the value of the goods made annually in the establishments reporting as to imports, we find that the manufacturers engaged in the 20 industries just presented turned out the following percentages of total annual product in the industries specified.

40 to 50 per cent.

Cordage and Twine.
Emery and Sand Paper and Cloth,
etc.
Straw and Palm Leaf Goods.

50 to 60 per cent.

Carpetings.
Paints, Colors, and Crude Chemicals.
Toys and Games (Children's).

60 to 70 per cent.

Buttons and Dress Trimmings.
Dyestuffs.
Fertilizers.
Flax, Hemp, and Jute Goods.
Glass.

60 to 70 per cent — Con.

Jewelry Burnishing and Lapidary
Work.
Linen.
Woollen Goods.
Worsted Goods.

70 to 80 per cent.

Clocks and Watches.
Hosiery and Knit Goods.

80 to 90 per cent.

Glue, Isinglass, and Starch.
Ivory, Bone, Shell, and Horn Goods,
etc.

90 to 100 per cent.

Perfumes, Toilet Articles, etc.

The 39 industries classified under "Effect not Stated" are given below.

Arms and Ammunition.	Liquors and Beverages (Not Spirituous).
Artificial Teeth and Dental Work.	Liquors: Malt, Distilled, and Fermented.
Awnings, Tents, and Decorations.	Lumber.
Boxes (Paper and Wooden).	Metals and Metallic Goods.
Brick, Tiles, and Sewer Pipe.	Models and Patterns.
Brooms, Brushes, and Mops.	Musical Instruments and Materials.
Building.	Photographs and Photographic Materials.
Carriages and Wagons.	Printing, Publishing, and Bookbinding.
Cement, Kaolin, Lime, and Plaster.	Print Works, Dye Works, and Bleacheries.
Charcoal and Kindlers.	Railroad Construction.
Chemical Preparations (Compound- ed).	Salt.
Clothing.	Scientific Instruments and Appliances.
Concrete Walks, Paving, etc.	Sporting and Athletic Goods.
Corks, Bungs, and Taps.	Stone.
Cotton, Woollen, and Other Textiles.	Tobacco, Snuff, and Cigars.
Drugs and Medicines.	Trunks and Valises.
Electroplating.	Wooden Goods.
Fancy Articles.	
Fine Arts and Taxidermy.	
Fireworks and Matches.	
Food Preparations.	
Gas and Residual Products.	

The replies for the 39 industries, in which the majority of manufacturers did not state the effect produced upon sales by the importation of foreign-made goods, are classified in the following table, which includes also the number of establishments, value of product, and percentages:

"Effect not Stated." Aggregates for Industries.

CLASSIFICATION OF REPLIES.	Estab- lish- ments	Value of Product	PERCENTAGES	
			Estab- lishments	Product
Sales not decreased,	2,084	\$63,844,164	12.25	21.62
Sales decreased,	648	39,139,763	3.81	13.25
Effect not stated,	14,275	192,338,382	83.94	65.13
TOTALS,	17,007	\$295,322,309	100.00	100.00

The proprietors of 83.94 per cent of the establishments, representing 65.13 per cent of the total product, did not state

the effect produced upon sales by the importation of foreign-made goods; in the industries included, however, the proprietors of 12.25 per cent of the establishments, with 21.62 per cent of the total product, reported that sales were not decreased, while the owners of 3.81 per cent of the establishments, having 13.25 per cent of the total product, considered that their sales were decreased by foreign competition.

We have spoken previously of the difficulty of classifying under the three heads — “Sales not Decreased,” “Sales Decreased,” and “Effect not Stated” — the replies made by the manufacturers. In the succeeding table we present the replies in detail. The Bureau has aimed to be fair, and to avoid bias in classifying what might be considered as disputed lines. The benefit of the doubt has been given to “Sales not Decreased” in some cases, and to “Sales Decreased” in others. We do not believe that any two persons, however unprejudiced they might be, would make the same classification of the replies under consideration. If the classification adopted by the Bureau is unsatisfactory to any reader, the means are herewith supplied by which he can make a distribution to suit his own ideas. The replies given below are the answers in detail, from the proprietors of 23,431 establishments, to the inquiry, — “Are sales decreased by the importation of foreign-made goods?”

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. Replies in Detail.

CLASSIFICATION OF REPLIES.	Number of Industries Represented	Number of Establishments	Value of Product
<i>Sales not Decreased.</i>	—	3,682	\$224,791,046
But nominal amount imported,	1	1	135,000
Hardly any,	1	1	403,765
No,	76	3,492	199,569,695
No foreign of the kind,	1	1	46,883
No importations,	6	8	557,322
No, in Canada some,	2	2	208,000
No, increased,	1	1	25,000
Not directly,	2	4	1,852,468
Not essentially,	1	3	729,983
Not important,	1	1	25,000
Not in my line,	2	2	55,000
Not in this locality,	1	1	2,000
Not materially,	10	11	3,246,096

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. Replies in Detail — Continued.

CLASSIFICATION OF REPLIES.	Number of Industries Represented	Number of Establishments	Value of Product
<i>Sales not Decreased — Con.</i>			
Not noted,	4	5	\$87,060
Not of the quality made by us,	1	1	216,281
Not perceptibly,	7	7	538,100
Not seriously,	1	2	2,701,731
Only in the Provinces,	1	•1	80,863
Our sales are increased as we sell some articles of foreign manufacture,	1	1	400
Probably not,	2	2	65,335
Should judge small,	1	1	550
Small degree,	3	4	615,698
Think not,	23	61	5,189,286
To no extent,	12	29	5,311,303
Very few imported,	2	2	109,600
Very little,	17	41	2,610,955
Very little if any,	2	4	196,657
Would, if any were imported,	1	1	51,000
Yes, but not appreciably,	1	1	160,015
<i>Sales Decreased.</i>			
	—	1,316	\$133,143,222
About 20 per cent,	1	1	51,377
About 30 per cent,	1	1	170,400
A little,	3	3	131,327
At times,	1	1	634,030
In a measure,	1	1	43,000
In wool yes, in skins no,	1	1	180,000
Knit goods yes, woven not appreciably,	1	1	989,640
Limited extent,	4	7	366,065
Little on silk thread, considerable on hair,	1	1	63,487
More or less,	1	1	473,200
More than one-half,	1	1	440
Not largely,	1	1	148,271
Not much,	15	27	2,053,715
On some colors,	1	1	100,000
Probably one-half,	1	1	50,000
Slightly,	17	33	11,960,413
Some seasons from German and French goods,	1	1	145,280
Somewhat,	17	26	2,371,290
Think they are,	11	14	482,832
To a certain extent,	13	22	2,614,836
Undoubtedly,	2	2	370,426
Very largely,	7	9	1,089,518
Yes,	73	1,150	107,976,394
Yes, by Canada and Holyoke lumber,	1	1	3,250
Yes, by goods coming from New York,	1	1	10,000
Yes, Chinese labor,	1	1	600
Yes, indirectly,	4	4	232,506
Yes, in markets where sold,	1	1	25,000
Yes, with reference to morocco-finishing machinery,	1	1	18,765
Yes, three-eighths of our production,	1	1	387,150

Influence Exerted upon Sales of Domestic Manufactures by the Importation of Foreign-made Goods. Replies in Detail — Concluded.

CLASSIFICATION OF REPLIES.	Number of Industries Represented	Number of Establishments	Value of Product
<i>Effect not Stated.</i>	—	18,433	\$316,700,001
Cannot tell,	1	1	1,550
Do not have any,	1	1	25,000
Do not know,	8	17	1,785,464
Do not use foreign goods,	1	2	41,000
Doubtful,	2	2	285,858
May be,	1	1	3,000
No account,	1	1	5,850
No and yes,	1	1	10,000
Not to my knowledge,	8	13	644,183
Not given,	83	18,385	312,371,681
Possibly,	2	2	103,000
Probably,	5	6	1,355,488
Would have been if foreign goods had entered free, . . .	1	1	67,927

EXPORTS.

The information elicited in relation to exports was obtained in answer to the inquiry — “Total value of goods exported during the year?” The figures obtained, however, show only the value of goods exported by manufacturers themselves direct from their mills or factories. No statistics could be obtained of the value of goods sold by manufacturers to agents or jobbers, and by them exported to foreign countries. This limitation should be remembered when considering the figures presented hereinafter.

The distribution of product, or the manner of selling goods, was shown in the volume of the Census of 1885 that was devoted to Manufactures. Although the returns covered but 6,627, or 28.28 per cent, out of a total of 23,431 establishments, yet they represented the larger establishments engaged in manufacturing and mechanical industries, and the manner of distribution, as regards sales, of the majority of the manufactured products of the Commonwealth. In these tables it is shown that the proprietors of 5,027 establishments, or 75.86 per cent, sold goods from the factory only, while 381 other establishments sold part of their product from the factory.

In the first division of this Part, headed “MARKETS,” the designation “Foreign Countries” is used in connection with

203 firms, or 2.56 per cent of those reporting as to markets. The value of the annual product of these 203 establishments was \$29,431,508, or 6.34 per cent of the total value of product of all establishments reporting as to markets. Upon examining the particular returns relating to exports, we find that a great many establishments export goods that did not so report under "Markets." This could properly happen, for the manufacturers were called upon to state where the product of their establishments was sold principally, and while they might ship goods to foreign countries, the amount might be comparatively so small as not to require mention under the above instruction.

The first tabular presentation shows the whole number of establishments engaged in manufacturing and mechanical industries during the Census year, the number of establishments reporting the value of goods exported, the value of goods exported, the total product of establishments reporting the value of goods exported, and the percentages of value of goods exported of the value of the total product of establishments reporting the value of goods exported.

Number of Establishments Exporting Goods to Foreign Countries, and Value of Goods Exported; with Percentages.

INDUSTRIES.	Whole Number of Establishments (Census Year)	Number of Establishments Reporting Value of Goods Exported	Value of Goods Exported	Total Product of Establishments Reporting Value of Goods Exported	Percentages of Value of Goods Exported of Value of Total Product of Establishments Reporting Value of Goods Exported
Agricultural implements,	30	11	\$23,912	\$114,657	20.86
Arms and ammunition,	40	5	7,457	251,558	2.96
Artificial teeth and dental work,	489	-	-	-	-
Artisans' tools,	140	32	278,703	1,507,717	18.49
Awnings, tents, and decorations,	14	-	-	-	-
Boots and shoes,	2,366	162	6,094,757	10,635,675	57.30
Boxes (paper and wooden),	215	23	243,382	354,761	68.60
Brick, tiles, and sewer pipe,	114	17	86,240	202,845	42.52
Brooms, brushes, and mops,	72	8	27,219	181,696	14.98
Building,	3,773	22	102,068	430,088	23.73
Burial cases, caskets, coffins, etc.,	113	4	4,330	95,142	4.55
Buttons and dress trimmings,	16	2	8,855	291,520	3.04
Carpetings,	46	4	7,400	61,400	12.05
Carriages and wagons,	1,013	30	276,971	871,384	31.79
Cement, kaolin, lime, and plaster,	16	5	34,234	69,360	49.36
Charcoal and kindlers,	11	2	515	770	66.88
Chemical preparations (compound- ed),	23	5	67,417	275,870	24.44

*Number of Establishments Exporting Goods to Foreign Countries, and
Value of Goods Exported; with Percentages — Continued.*

INDUSTRIES.	Whole Number of Estab- lish- ments (Census Year)	Number of Estab- lishments Report- ing Value of Goods Exported	Value of Goods Exported	Total Prod- uct of Estab- lish- ments Reporting Value of Goods Exported	Percentages of Value of Goods Exported of Value of Total Product of Establish- ments Report- ing Value of Goods Exported
Clocks and watches,	47	4	\$362,291	\$2,279,746	15.89
Clothing,	2,402	24	274,495	1,600,584	17.15
Concrete walks, paving, etc., . . .	20	1	1,500	20,000	7.50
Cooking, lighting, and heating appa- ratus,	65	9	74,053	966,841	7.66
Cordage and twine,	52	10	200,490	3,522,495	5.69
Corks, bungs, and taps,	4	-	-	-	-
Cotton goods,	165	16	869,625	8,855,738	9.82
Cotton, woollen, and other textiles,	4	-	-	-	-
Crayons, pencils, crucibles, etc., .	7	2	5,500	38,000	14.47
Drugs and medicines,	916	18	295,813	2,064,391	14.33
Dyestuffs,	9	1	2,000	78,000	2.56
Earthen, plaster, and stone ware, .	22	3	31,250	130,000	24.04
Electrical apparatus and appliances,	40	4	31,087	221,649	14.03
Electroplating,	35	2	11,000	51,000	21.57
Emery and sand paper and cloth, etc.,	13	6	9,563	376,748	2.54
Fancy articles,	18	1	1,687	3,120	54.07
Fertilizers,	17	4	61,920	1,850,587	3.35
Fine arts and taxidermy,	23	1	500	2,000	25.00
Fireworks and matches,	5	1	2,283	23,364	9.77
Flax, hemp, and jute goods,	9	1	3,000	24,460	12.26
Food preparations,	1,711	80	5,050,694	18,825,128	26.83
Furniture,	603	41	476,561	2,487,982	19.15
Gas and residual products,	66	-	-	-	-
Glass,	20	5	25,840	551,845	4.68
Glue, isinglass, and starch,	29	7	16,150	344,677	4.69
Hair work (animal and human), . .	55	1	750	7,480	10.03
Hose: rubber, linen, etc.,	3	1	5,000	550,520	0.91
Hosiery and knit goods,	60	2	6,060	135,500	4.47
Ink, mucilage, and paste,	20	2	3,050	21,520	14.17
Ivory, bone, shell, and horn goods, etc.,	39	3	10,874	396,982	2.74
Jewelry burnishing and lapidary work,	7	-	-	-	-
Leather,	699	37	1,175,377	5,891,282	19.95
Linen,	3	-	-	-	-
Liquors and beverages (not spiritu- ous),	63	2	93	9,391	0.99
Liquors: malt, distilled, and fer- mented,	218	11	313,710	456,749	68.68
Lumber,	466	41	106,790	224,142	47.64
Machines and machinery,	622	89	286,441	6,281,637	4.56
Metals and metallic goods,	2,732	95	969,833	5,808,862	16.70
Mixed textiles,	13	1	14	57,500	0.02
Models and patterns,	51	1	630	13,100	4.81

*Number of Establishments Exporting Goods to Foreign Countries, and
Value of Goods Exported; with Percentages—Concluded.*

INDUSTRIES.	Whole Number of Estab- lish- ments (Census Year)	Number of Estab- lishments Report- ing Value of Goods Exported	Value of Goods Exported	Total Prod- uct of Estab- lish- ments Report- ing Value of Goods Exported	Percentages of Value of Goods Export- ed of Value of Total Product of Establish- ments Report- ing Value of Goods Exported
Musical instruments and materials,	93	25	\$361,761	\$2,716,784	13.32
Oils and illuminating fluids, . . .	28	7	143,500	446,550	32.14
Paints, colors, and crude chemicals,	22	4	28,974	399,000	7.26
Paper and paper goods,	148	17	135,140	1,982,930	6.82
Perfumes, toilet articles, etc., . .	10	2	6,472	20,289	31.90
Photographs and photographic ma- terials,	241	4	6,420	11,100	57.84
Polishes and dressing,	65	11	65,738	379,946	17.30
Printing, publishing, and book- binding,	712	6	41,200	67,000	61.49
Print works, dye works, and bleach- eries,	96	-	-	-	-
Railroad construction,	15	1	65,936	274,530	24.02
Rubber and elastic goods,	41	6	6,903	1,151,950	0.60
Salt,	5	-	-	-	-
Scientific instruments and appli- ances,	65	9	16,217	273,125	5.94
Shipbuilding,	279	-	-	-	-
Silk and silk goods,	12	1	5,000	533,840	0.94
Sporting and athletic goods, . . .	27	2	2,558	61,986	4.13
Stone,	378	44	560,087	872,397	64.20
Straw and palm leaf goods, . . .	47	3	249,827	1,500,962	16.64
Tallow, candles, soap, and grease,	155	16	385,662	1,190,447	32.40
Tobacco, snuff, and cigars, . . .	302	15	31,516	139,282	22.63
Toys and games (children's), . . .	15	5	32,750	216,807	15.11
Trunks and valises,	25	-	-	-	-
Whips, lashes, and stocks, . . .	60	12	67,905	441,200	15.39
Wooden goods,	554	53	91,382	428,901	21.31
Woollen goods,	189	6	119,800	360,442	33.24
Worsted goods,	23	-	-	-	-
ALL INDUSTRIES,	23,431	1,113	\$20,374,132	\$92,986,931	21.91

There were 1,113 establishments that exported goods to the value of \$20,374,132 during the year considered. The establishments, 1,113 in number, form 14.03 per cent of the 7,935 reporting as to markets, and 4.75 per cent of the whole number of establishments, 23,431, engaged in business in the Census year 1885.

The value of exports, \$20,374,132, is 21.91 per cent of the total annual product, \$92,986,931, of the 1,113 establishments,

and 3.02 per cent of the total value of all manufactured products during the Census year, or \$674,634,269.

The value of product in the 1,113 establishments exporting goods, or \$92,986,931, is 13.78 per cent of \$674,634,269, the total value of all products of manufacturing and mechanical industries during the Census year 1885.

If we classify the percentages in the last column of the table, by industries, we secure the following :

CLASSIFICATION OF PERCENTAGES.	Number of Industries
Under 5 per cent,	18
5 but under 10 per cent,	8
10 but under 20 per cent,	19
20 but under 30 per cent,	10
30 but under 40 per cent,	5
40 but under 50 per cent,	3
50 but under 60 per cent,	3
60 per cent and over,	5
No exports,	12
WHOLE NUMBER OF INDUSTRIES,	83

From this table, we learn that in 18 industries the percentage of value of goods exported of value of total product of establishments reporting value of goods exported was under five per cent. The remaining lines do not require repetition in text form. Twelve industries do not export any goods. The names of the industries having exports, with specified percentages of value, and those having no exports, can be seen in the table commencing on page 198. The use of the dash (—) indicates that the industry has no exports.

The next tabular presentation gives the whole number of establishments engaged in manufacturing and mechanical industries during the Census year 1885; the number of establishments reporting the value of goods exported; the percentages of establishments, by industries, reporting the value of goods exported; the value of total product of all establishments during the Census year 1885; the value of goods exported; and the percentages of value of goods exported of value of total product, by industries.

*Comparative Value of Goods Exported of Total Product: By Industries.
With Percentages.*

INDUSTRIES.	ESTABLISHMENTS			Value of Total Product of all Establish- ments (Census Year)	Value of Goods Exported	Percent- ages of Value of Goods Exported of Value of Total Product
	Whole Number (Census Year)	Number Re- porting Value of Goods Ex- ported	Percent- ages Report- ing Value of Goods Ex- ported			
Agricultural implements, . . .	30	11	36.67	\$1,324,597	\$23,912	1.81
Arms and ammunition, . . .	40	5	12.50	2,058,879	7,457	0.36
Artificial teeth and dental work, . . .	489	-	-	651,857	-	-
Artisans' tools, . . .	140	32	22.86	2,509,107	278,703	11.11
Awnings, tents, and decorations, . . .	14	-	-	108,579	-	-
Boots and shoes, . . .	2,366	162	6.85	114,729,533	6,094,757	5.31
Boxes (paper and wooden), . . .	215	28	13.02	4,332,505	243,382	5.62
Brick, tiles, and sewer pipe, . . .	114	17	14.91	1,541,879	80,240	5.59
Brooms, brushes, and mops, . . .	72	8	11.11	1,365,873	27,219	1.99
Building, . . .	3,773	22	0.58	39,801,245	102,068	0.26
Burial cases, caskets, coffins, etc., . . .	113	4	3.54	770,333	4,330	0.56
Buttons and dress trimmings, . . .	16	2	12.50	1,016,153	8,855	0.87
Carpetings, . . .	46	4	8.70	6,536,341	7,400	0.11
Carriages and wagons, . . .	1,013	30	2.96	7,277,933	276,971	3.81
Cement, kaolin, lime, and plaster, . . .	16	5	31.25	239,875	34,234	14.27
Charcoal and kindlers, . . .	11	2	18.18	11,480	515	4.49
Chemical preparations (com- pounded), . . .	23	5	21.74	1,165,134	67,417	5.79
Clocks and watches, . . .	47	4	8.51	3,325,199	362,291	10.90
Clothing, . . .	2,402	24	1.00	32,659,837	274,495	0.84
Concrete walks, paving, etc., . . .	20	1	5.00	150,798	1,500	0.99
Cooking, lighting, and heating apparatus, . . .	65	9	13.85	3,131,582	74,053	2.36
Cordage and twine, . . .	52	10	19.23	5,077,261	200,490	3.95
Corks, bungs, and taps, . . .	4	-	-	144,000	-	-
Cotton goods, . . .	165	16	9.70	61,425,097	869,625	1.42
Cotton, woollen, and other tex- tiles, . . .	4	-	-	2,394,583	-	-
Crayons, pencils, crucibles, etc., . . .	7	2	28.57	104,490	5,500	5.26
Drugs and medicines, . . .	916	18	1.97	4,722,838	295,813	6.26
Dyestuffs, . . .	9	1	11.11	789,973	2,000	0.25
Earthen, plaster, and stone ware, . . .	22	3	13.64	433,213	31,250	7.21
Electrical apparatus and appli- ances, . . .	40	4	10.00	1,397,737	31,087	2.22
Electroplating, . . .	35	2	5.71	214,507	11,000	5.13
Emery and sand paper and cloth, etc., . . .	13	6	46.15	566,101	9,563	1.69
Fancy articles, . . .	18	1	5.56	81,981	1,687	2.06
Fertilizers, . . .	17	4	23.53	2,778,987	61,920	2.23
Fine arts and taxidermy, . . .	23	1	4.35	42,124	500	1.19
Fireworks and matches, . . .	5	1	20.00	91,210	2,283	2.50
Flax, hemp, and jute goods, . . .	9	1	11.11	1,493,623	3,000	0.20
Food preparations, . . .	1,711	80	4.68	80,488,329	5,050,694	6.28
Furniture, . . .	603	41	6.80	12,716,908	476,561	3.75
Gas and residual products, . . .	66	-	-	4,573,962	-	-

*Comparative Value of Goods Exported of Total Product: By Industries.
With Percentages — Continued.*

INDUSTRIES.	ESTABLISHMENTS			Value of Total Product of all Establishments (Census Year)	Value of Goods Exported	Percent-ages of Value of Goods Exported of Value of Total Product
	Whole Number (Census Year)	Number Reporting Value of Goods Ex-ported	Percent-ages Reporting Value of Goods Ex-ported			
Glass,	20	5	25.00	\$1,091,949	\$25,840	2.37
Glue, isinglass, and starch, . .	29	7	24.14	1,306,331	16,150	1.24
Hair work (animal and human), .	55	1	1.82	442,063	750	0.17
Hose: rubber, linen, etc., . . .	3	1	33.33	790,480	5,000	0.63
Hosiery and knit goods,	60	2	3.33	4,196,522	6,060	0.14
Ink, mucilage, and paste, . . .	20	2	10.00	131,626	3,050	2.32
Ivory, bone, shell, and horn goods, etc.,	39	3	7.69	1,628,413	10,874	0.67
Jewelry burnishing and lapidary work,	7	—	—	47,500	—	—
Leather,	699	37	5.29	28,008,851	1,175,377	4.20
Linen,	3	—	—	1,068,489	—	—
Liquors and beverages (not spirituous),	63	2	3.17	641,216	93	0.01
Liquors: malt, distilled, and fermented,	218	11	5.05	7,881,240	313,710	3.98
Lumber,	466	41	8.80	3,627,345	106,790	2.94
Machines and machinery,	622	89	14.31	20,365,970	286,441	1.41
Metals and metallic goods, . . .	2,732	95	3.48	41,332,005	969,833	2.35
Mixed textiles,	13	1	7.69	1,323,861	14	*—
Models and patterns,	51	1	1.96	258,242	630	0.24
Musical instruments and materials, .	93	25	26.88	6,145,008	361,761	5.89
Oils and illuminating fluids, . .	28	7	25.00	2,294,931	143,500	6.25
Paints, colors, and crude chemicals,	22	4	18.18	763,034	28,974	3.80
Paper and paper goods,	148	17	11.49	21,223,626	135,140	0.64
Perfumes, toilet articles, etc., .	10	2	20.00	409,801	6,472	1.58
Photographs and photographic materials,	241	4	1.66	936,165	6,420	0.69
Polishes and dressing,	65	11	16.92	1,788,412	65,738	3.68
Printing, publishing, and book-binding,	712	6	0.84	16,552,475	41,200	0.25
Print works, dye works, and bleacheries,	96	—	—	15,880,843	—	—
Railroad construction,	15	1	6.67	2,158,224	65,936	3.06
Rubber and elastic goods,	41	6	14.63	12,638,741	6,903	0.05
Salt,	5	—	—	46,890	—	—
Scientific instruments and appliances,	65	9	13.85	1,227,683	16,217	1.32
Shipbuilding,	279	—	—	2,107,986	—	—
Silk and silk goods,	12	1	8.33	3,501,240	5,000	0.14
Sporting and athletic goods, . . .	27	2	7.41	1,079,966	2,558	0.24
Stone,	378	44	11.64	5,508,569	560,087	10.17
Straw and palm leaf goods, . . .	47	3	6.38	6,265,287	249,827	3.99

* Less than one one-hundredth of one per cent.

*Comparative Value of Goods Exported of Total Product: By Industries.
With Percentages — Concluded.*

INDUSTRIES.	ESTABLISHMENTS			Value of Total Product of all Establish- ments (Census Year)	Value of Goods Exported	Percent- ages of Value of Goods Exported of Value of Total Product
	Whole Number (Census Year)	Number Re- porting Value of Goods Ex- ported	Percent- ages Report- ing Value of Goods Ex- ported			
Tallow, candles, soap, and grease,	155	16	10.32	\$3,474,890	\$385,662	11.10
Tobacco, snuff, and cigars,	302	15	4.97	2,813,084	31,516	1.12
Toys and games (children's),	15	5	33.33	316,895	32,750	10.33
Trunks and valises,	25	-	-	346,720	-	-
Whips, lashes, and stocks,	60	12	20.00	1,052,401	67,905	6.45
Wooden goods,	534	53	9.93	4,767,726	91,382	1.92
Woollen goods,	189	6	3.17	31,748,278	119,800	0.38
Worsted goods,	23	-	-	11,198,148	-	-
ALL INDUSTRIES,	23,431	1,113	4.75	\$674,634,269	\$20,374,132	3.02

The 1,113 establishments engaged in the export trade form 4.75 per cent of all establishments, and the value of goods exported in a year is 3.02 per cent of the total value of goods manufactured annually.

The percentages in the last column of the table are classified below by industries.

CLASSIFICATION OF PERCENTAGES.	Number of Industries
Under one per cent,	23
1 but under 2 per cent,	11
2 but under 3 per cent,	9
3 but under 4 per cent,	8
4 but under 5 per cent,	2
5 but under 10 per cent,	12
10 per cent and over,	6
No exports,	12
WHOLE NUMBER OF INDUSTRIES,	83

There are 23 industries in which the value of goods exported is less than one per cent of the value of total product in each of those industries. We consider the information in the table commencing on page 202 of sufficient value to warrant the classification, by name, of each industry under its proper percentage. No stronger presentation can be made of the small

value of our exports in comparison with the value of goods made in each industry.

To put the unemployed at work, to extend the yearly working time, to increase the proportion of business done, and to utilize what unproductive manufacturing capital there is, at present, in this State, require the manufacture of more goods and their sale in either local, home, or foreign markets.

The possibilities of the extension of our foreign trade may be seen in the following industry classification by percentages.

Industries exporting under one per cent of the total value of product.

Arms and Ammunition.
Building.
Burial Cases, Caskets, Coffins, etc.
Buttons and Dress Trimmings.
Carpetings.
Clothing.
Concrete Walks, Paving, etc.
Dyestuffs.
Flax, Hemp, and Jute Goods.
Hair Work (Animal and Human).
Hose: Rubber, Linen, etc.
Hosiery and Knit Goods.
Ivory, Bone, Shell, and Horn Goods, etc.
Liquors and Beverages (Not Spirituous).
Mixed Textiles.
Models and Patterns.
Paper and Paper Goods.
Photographs and Photographic Materials.
Printing, Publishing, and Book-binding.
Rubber and Elastic Goods.
Silk and Silk Goods.
Sporting and Athletic Goods.
Woollen Goods.

Industries exporting 1 but under 2 per cent of the total value of product.

Agricultural Implements.
Brooms, Brushes, and Mops.
Cotton Goods.

Emery and Sand Paper and Cloth, etc.
Fine Arts and Taxidermy.
Glue, Isinglass, and Starch.
Machines and Machinery.
Perfumes, Toilet Articles, etc.
Scientific Instruments and Appliances.
Tobacco, Snuff, and Cigars.
Wooden Goods.

Industries exporting 2 but under 3 per cent of the total value of product.

Cooking, Lighting, and Heating Apparatus.
Electrical Apparatus and Appliances.
Fancy Articles.
Fertilizers.
Fireworks and Matches.
Glass.
Ink, Mucilage, and Paste.
Lumber.
Metals and Metallic Goods.

Industries exporting 3 but under 4 per cent of the total value of product.

Carriages and Wagons.
Cordage and Twine.
Furniture.
Liquors: Malt, Distilled, and Fermented.
Paints, Colors, and Crude Chemicals.
Polishes and Dressing.
Railroad Construction.
Straw and Palm Leaf Goods.

Industries exporting 4 but under 5 per cent of the total value of product.

Charcoal and Kindlers.
Leather.

Industries exporting 5 but under 10 per cent of the total value of product.

Boots and Shoes.
Boxes (Paper and Wooden).
Brick, Tiles, and Sewer Pipe.
Chemical Preparations (Compounded).
Crayons, Pencils, Crucibles, etc.
Drugs and Medicines.
Earthen, Plaster, and Stone Ware.
Electroplating.
Food Preparations.
Musical Instruments and Materials.
Oils and Illuminating Fluids.
Whips, Lashes, and Stocks.

Industries exporting 10 per cent and over of the total value of product.

Artisans' Tools.
Cement, Kaolin, Lime, and Plaster.
Clocks and Watches.
Stone.
Tallow, Candles, Soap, and Grease.
Toys and Games (Children's).

Industries reporting no exports.

Artificial Teeth and Dental Work.
Awnings, Tents, and Decorations.
Corks, Bungs, and Taps.
Cotton, Woollen, and Other Textiles.
Gas and Residual Products.
Jewelry Burnishing and Lapidary Work.
Linen.
Print Works, Dye Works, and Bleacheries.
Salt.
Shipbuilding.
Trunks and Valises.
Worsted Goods.

We next bring into comparison, by classified percentages, the whole number of establishments engaged in manufacturing and mechanical industries during the Census year, and the percentages of value of goods exported of the value of total product.

Number of Establishments Exporting Goods to Foreign Countries and Value of Goods Exported: By Classified Percentages.

CLASSIFICATION OF PERCENTAGES.	ESTABLISHMENTS			Total Product of all Establishments (Census year)	Value of Goods Exported	Percentages of Value of Goods Exported of Value of Total Product
	Whole Number (Census year)	Number Reporting Value of Goods Exported	Percentages Reporting Value of Goods Exported			
Under one per cent, . . .	8,082	117	1.45	\$182,238,470	\$751,547	0.41
1 but under 2 per cent, . . .	1,865	217	6.27	95,613,887	1,378,997	1.44
2 but under 3 per cent, . . .	3,383	162	4.79	53,664,422	1,276,543	2.38
3 but under 4 per cent, . . .	2,035	111	5.45	43,928,299	1,678,207	3.82
4 but under 5 per cent, . . .	710	39	5.49	28,020,331	1,175,892	4.20
5 but under 10 per cent, . . .	5,590	361	6.46	217,224,768	12,459,219	5.74
10 per cent and over, . . .	751	106	14.11	15,374,535	1,653,727	10.77
No exports, . . .	1,015	-	-	38,569,557	-	-
TOTALS, . . .	23,431	1,113	4.75	\$674,634,269	\$20,374,132	3.02

The establishments exporting under one per cent of the total value of product included 1.45 per cent of all establishments in the industries to which they belong, and represented 0.41 per cent of the total value of goods made in those industries; those exporting 1 but under 2 per cent, 6.27 per cent of the establishments in the industries and 1.44 per cent of the value of goods made; those exporting 2 but under 3 per cent, 4.79 per cent of the establishments in the industries and 2.38 per cent of the value of goods. The other lines may be read in a similar way. It will be noticed that those establishments that exported 10 per cent and over of the total value of product comprised 14.11 per cent of all establishments in the industries to which they belong, and represented 10.77 per cent of the total value of goods made in those industries.

COMPETITION.

There were two inquiries made in order to secure information concerning competition. They were as follows:

1. Where is the principal competition in the manufacture of goods?
2. Where is the principal competition in selling goods?

The competition under consideration is that experienced by manufacturers in both the manufacture and sale of goods. The replies could only give the opinions or knowledge of manufacturers. No attempt was made to secure information from commission agents, wholesale dealers, jobbers, or others wholly interested in trade. Such agents, dealers, etc., have their own forms of competition to deal with, but their position is different from that of the manufacturer. The agent can sell goods made by one manufacturer, or he can sell those made by a dozen manufacturers. If one manufacturer's goods do not sell well, the agent can buy and sell those made by other firms. With the manufacturer, the situation is more critical. If he cannot sell the product of his mill or factory, his financial ruin is inevitable. Thus, to a manufacturer, competition is a more vital matter than it is to a dealer. The manufacturers were only asked to name the cities, towns, states, or countries, with which they were brought into competition in the manufacture or sale of their goods. Some manufacturers named one

city, town, state, or country; others named a city and a state, or a town and some foreign country. The combinations were so numerous that it was impossible to use them in that form. In the tabular presentation which follows, each town, city, state, or country has been counted each time it was mentioned; therefore the total of establishments will exceed the actual number of establishments reporting as to competition.

States, Cities, Towns, and Countries, in which Massachusetts Manufacturers meet with Competition in the Manufacture and Sale of Goods.

STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN—		STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN—	
	the Manu- facture of Goods	the Selling of Goods		the Manu- facture of Goods	the Selling of Goods
DOMESTIC.			<i>Kentucky.</i>	1	—
<i>California.</i>	2	4	Kentucky (not specified),	1	—
San Francisco,	1	4	<i>Louisiana.</i>	1	4
California (not specified), .	1	—	New Orleans,	1	4
<i>Connecticut.</i>	152	47	<i>Maine.</i>	84	26
Ansonia,†	1	—	Augusta,	1	1
Bridgeport,	4	1	Bangor,	2	—
Canaan,	3	1	Bath,	2	1
Cheshire,	—	1	Biddeford,	2	—
Danielsonville,†	1	1	Camden,	1	—
Granby,	1	1	Cumberland,	—	1
Hartford,	14	6	Lewiston,	1	—
Meriden,	1	—	Portland,	4	3
Middletown,	2	—	Saco,	1	—
New Boston,*	1	—	Maine (not specified), . .	70	20
New Britain,	4	1	<i>Maryland.</i>	18	14
New Haven,	8	3	Baltimore,	16	14
New London,	1	—	Maryland (not specified), .	2	—
Norwich,	2	1	<i>Massachusetts.</i>	3,704	3,377
Portland,	1	—	Adams,	2	—
Putnam,	2	—	Amesbury,	6	1
Rockville,*	1	1	Amherst,	1	—
Thompsonville,*	1	—	Athol,	1	—
Waterbury,	1	—	Attleborough,	46	1
Willimantic,†	1	—	Auburn,	3	1
Winsted,†	1	1	Ayer,	1	—
Connecticut (not specified), .	101	29	Berlin,	1	—
<i>Delaware.</i>	8	3	Boston,	178	224
Wilmington,	6	2	Brockton,	7	3
Delaware (not specified), .	2	1	Brookfield,	1	—
<i>Illinois.</i>	76	86	Cambridge,	3	—
Chicago,	67	82	Canton,	1	—
Elgin,	3	—	Charlton,	—	1
Quincy,	1	—	Cheshire,	1	—
Illinois (not specified), . .	5	4	Chester,	2	—
<i>Indiana.</i>	4	2	Colrain,	2	—
Indianapolis,	2	1	Dighton,	1	—
Indiana (not specified), .	2	1	East Brimfield,*	1	—
<i>Iowa.</i>	1	—	Easthampton,	2	—
Iowa (not specified), . . .	1	—	Fall River,	3	5
			Fitchburg,	6	1
			Foxborough,	1	—

* Villages.

† Boroughs.

States, Cities, Towns, and Countries, in which Massachusetts Manufacturers meet with Competition in the Manufacture and Sale of Goods — Continued.

STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN—		STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN—	
	the Manu- facture of Goods	the Selling of Goods		the Manu- facture of Goods	the Selling of Goods
<i>Massachusetts — Con.</i>			<i>Massachusetts — Con.</i>		
Gardner,	1	—	Winchendon,	1	—
Gloucester,	3	4	Woburn,	1	1
Great Barrington,	—	1	Worcester,	21	11
Greenfield,	1	—	Wrentham,	2	1
Hamilton,	1	1	Local,	1,821	1,861
Haverhill,	12	8	Massachusetts (not specified),	1,340	1,184
Haydenville,*	1	—	Penal institutions,	82	13
Holliston,	2	—			
Holyoke,	4	3	<i>Michigan.</i>		
Hudson,	1	—		15	2
Kingston,	1	—	Detroit,	6	—
Lawrence,	9	3	Grand Rapids,	2	1
Lee,	2	1	Michigan (not specified),	7	1
Lenox,	1	—			
Leominster,	3	—	<i>Minnesota.</i>		
Lowell,	17	2		1	—
Ludlow,	1	—	Minnesota (not specified),	1	—
Lynn,	16	7			
Mansfield,	2	—	<i>Missouri.</i>		
Marblehead,	—	1		6	15
Medfield,	1	1	Kansas City,	—	1
Medway,	1	2	St. Louis,	6	14
Merrimac,	2	1			
Milford,	4	1	<i>New Hampshire.</i>		
Monson,	1	—		112	24
Montague,	1	—	Ashuelot,*	1	—
New Bedford,	2	6	Berlin Falls,*	1	—
Newburyport,	1	1	Brookline,	1	1
North Adams,	1	—	Claremont,	1	—
Northampton,	3	—	Concord,	9	2
North Andover,	2	1	Epping,	1	—
North Attleborough,	1	1	Exeter,	1	1
Northborough,	1	—	Fishersville,*	1	—
North Wilbraham,*	1	—	Great Falls,*	1	—
Norton,	—	1	Keene,	3	—
Norwood,	1	—	Manchester,	4	1
Orange,	2	—	Nashua,	12	2
Otis,	1	—	Portsmouth,	1	—
Oxford,	—	1	South Newmarket,	1	—
Peabody,	1	—	New Hampshire (not speci- fied),	74	17
Pittsfield,	1	2			
Plainville,*	1	1	<i>New Jersey.</i>		
Plymouth,	2	—		89	15
Provincetown,	2	2	Elizabeth,	1	—
Quincy,	1	1	Jersey City,	2	3
Rockport,	1	—	Newark,	23	3
Salisbury,	2	—	Passaic,	1	—
Somerset,	1	—	Perth Amboy,	1	—
Somerville,	1	—	Trenton,	4	2
Southbridge,	1	—	New Jersey (not specified),	52	7
South Lancaster,*	1	—			
Spencer,	1	—	<i>New York.</i>		
Springfield,	13	7		681	749
Stoneham,	2	—	Albany,	7	—
Stoughton,	2	—	Amsterdam,	2	—
Taunton,	7	4	Brooklyn,	8	3
Templeton,	1	—	Buffalo,	1	—
Wakefield,	1	—	Fort Edward,	1	—
Walpole,	—	1	Gloversville,*	2	—
Waltham,	6	1	Hillsdale,	2	1
Westborough,	2	—	Matteawan,*	1	—
West Chesterfield,*	1	—	Millerton,*	1	1
Westfield,	8	2	New York,	271	328
Weston,	1	1	Ogdensburg,	1	—
			Oneida,	2	—
			Schenectady,	3	—
			Seneca Falls,	1	1

* Villages.

States, Cities, Towns, and Countries, in which Massachusetts Manufacturers meet with Competition in the Manufacture and Sale of Goods — Concluded.

STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN —		STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN —	
	the Manu- facture of Goods	the Selling of Goods		the Manu- facture of Goods	the Selling of Goods
<i>New York — Con.</i>			<i>Vermont — Con.</i>		
Syracuse,	1	—	Burlington,	2	—
Rochester,	11	2	Jacksonville,*	2	—
Rome,	1	1	Post Mills,*	1	—
Troy,	11	3	Readsborough,	1	—
Tuckahoe,*	—	1	Rutland,	4	1
Utica,	1	1	St. Johnsbury,	1	—
Waterford,	1	—	Upper Falls,*	1	—
New York (not specified), . .	352	407	Vermont (not specified), . .	33	6
<i>Ohio.</i>			<i>Wisconsin.</i>		
Akron,	2	—		5	1
Cincinnati,	16	12	Milwaukee,	2	—
Cleveland,	15	3	Wisconsin (not specified), . .	3	1
Columbus,	2	—	<i>United States.</i>		
Cuyahoga Falls,*	1	—		1,204	1,385
Dayton,	1	—	United States (not specified), .	1,204	1,385
East Liverpool,*	—	1	<i>FOREIGN.</i>		
Lorain,*	1	—		207	73
Medina,	1	—	Australia,	1	1
Sandusky,	1	1	Austria,	1	1
Tiffin,	1	—	Belgium,	1	—
Ohio (not specified),	27	14	British Provinces,	1	2
<i>Pennsylvania.</i>			Canada,	3	13
Philadelphia,	114	73	Newfoundland,	1	—
Pittsburgh,	7	2	Nova Scotia,	3	3
Scranton,	1	—	Cuba,	1	—
York,	1	—	Havana,	—	1
Pennsylvania (not specified), .	106	28	England,	64	11
<i>Rhode Island.</i>			Bradford,	—	1
Hope Valley,*	1	—	Liverpool,	—	1
Newport,	—	1	London,	1	1
Pawtucket,	5	6	Europe,	19	3
Providence,	85	31	France,	19	2
Woonsocket,	7	5	Paris,	4	—
Rhode Island (not specified), .	39	13	Germany,	26	5
<i>South Carolina.</i>			Great Britain,	5	—
South Carolina (not specified), .	1	—	Holland,	—	1
<i>Virginia.</i>			Amsterdam,	1	—
Virginia (not specified), . . .	4	1	Ireland,	1	—
<i>Vermont.</i>			Belfast,	1	1
Bellows Falls,*	2	—	Italy,	1	—
Bennington,	2	—	Japan,	1	—
			Mexico,	2	—
			Norway,	1	1
			Portugal,	1	—
			Scotland,	4	1
			Spain,	1	—
			Foreign (not specified), . . .	43	24

* Villages.

RECAPITULATION.

STATES, CITIES, TOWNS, AND COUNTRIES.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN —	
	the Manufacture of Goods	the Selling of Goods
DOMESTIC.	6,652	5,952
California,	2	4
Connecticut,	152	47
Delaware,	8	3
Illinois,	76	86
Indiana,	4	2
Iowa,	1	—
Kentucky,	1	—
Louisiana,	1	4
Maine,	84	26
Maryland,	18	14
Massachusetts,	3,704	3,377
Michigan,	15	2
Minnesota,	1	—
Missouri,	6	15
New Hampshire,	112	24
New Jersey,	89	15
New York,	681	749
Ohio,	68	31
Pennsylvania,	229	103
Rhode Island,	137	56
South Carolina,	1	—
Vermont,	49	7
Virginia,	4	1
Wisconsin,	5	1
United States (not specified),	1,204	1,385
FOREIGN.	207	73
Foreign countries (specified),	164	49
Foreign countries (not specified),	43	24

From the recapitulation we learn that 6,652 establishments reported domestic competition in the manufacture of goods, and 5,952 in the selling of goods. There were 207 establishments that reported foreign competition in the manufacture of goods, and 73 in the selling of goods. Considering aggregates, there were 6,859 establishments that reported domestic or foreign competition in the manufacture of goods, and 6,025 in the selling of goods. As explained previously, these numbers are in excess of the actual fact, for, as shown on page 224, but 5,426 establishments reported as to competition in the manufacture of goods, and 5,196 as to the selling of goods. The excesses in the number of establishments, 1,433 and 829,

are due to duplications of establishments, caused by the proprietors mentioning two or more localities as being competitors either in the manufacture or sale of goods.

The principal domestic competitors are the following cities in the United States: Hartford, Conn., Chicago, Ill., Nashua, N. H., Newark, N. J., New York, N. Y., Cincinnati and Cleveland, O., Philadelphia, Pa., and Providence, R. I. The principal competitors among foreign countries are England, France, and Germany. The "local" competition mentioned under "Massachusetts" means the cities or towns in which the establishments making return were located. It will be noticed under "Massachusetts" that the proprietors of 82 establishments mentioned competition with penal institutions in the manufacture of goods, and 13 in the selling of goods.

The competition reported is largely with other Massachusetts cities and towns. This is forcibly shown in the following table:

CLASSIFICATION OF LOCALITIES.	ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN —			
	the Manufacture of Goods		the Selling of Goods	
	Number	Percent- ages	Number	Percent- ages
Massachusetts,	3,704	54.00	3,377	56.05
Other parts of the United States,	2,948	42.98	2,575	42.74
Foreign Countries,	207	3.02	73	1.21
TOTALS,	6,859	100.00	6,025	100.00

The second and final presentation shows the competition in the manufacture and selling of goods by industries, the competing localities being arranged in ten classes, as follows:

1. Own City or Town and Vicinity (Local).
2. Cities and Towns in Massachusetts (Specified).
3. Other States (Specified).
4. Sections of the United States (Specified).
5. The United States (Not Specified).
6. Foreign Countries (Specified).
7. Foreign Countries (Not Specified).
8. The United States and Foreign Countries (Not Specified).
9. Various Causes (Specified).
10. Not Given and Indefinite.

In addition are given the whole number of establishments engaged in each industry in the Census year 1885, and the number of establishments reporting as to competition. In this table, the number of establishments accounted for in the ten classes is 7,935, the number that reported as to markets, that total having been taken as the basis, as regards establishments, for all the presentations in this Part.

COMPETITION IN THE MANUFACTURE AND SELLING OF GOODS:
BY INDUSTRIES.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN —			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Agricultural Implements.</i>				
1	In the manufacture of goods,	2	4	3	1
2	In selling goods,	—	7	1	3
	<i>Arms and Ammunition.</i>				
3	In the manufacture of goods,	2	3	4	1
4	In selling goods,	4	1	4	2
	<i>Artificial Teeth and Dental Work.</i>				
5	In the manufacture of goods,	41	1	3	2
6	In selling goods,	43	2	2	—
	<i>Artisans' Tools.</i>				
7	In the manufacture of goods,	9	7	28	7
8	In selling goods,	7	5	13	11
	<i>Awnings, Tents, and Decorations.</i>				
9	In the manufacture of goods,	3	1	—	—
10	In selling goods,	2	1	—	—
	<i>Boots and Shoes.</i>				
11	In the manufacture of goods,	260	19	310	152
12	In selling goods,	178	30	307	151
	<i>Boxes (Paper and Wooden).</i>				
13	In the manufacture of goods,	31	8	50	7
14	In selling goods,	39	8	31	4
	<i>Brick, Tiles, and Sewer Pipe.</i>				
15	In the manufacture of goods,	14	2	40	5
16	In selling goods,	18	2	36	3
	<i>Brooms, Brushes, and Mops.</i>				
17	In the manufacture of goods,	3	6	18	6
18	In selling goods,	7	1	14	5
	<i>Building.</i>				
19	In the manufacture of goods,	124	16	59	8
20	In selling goods,	159	9	52	7
	<i>Burial Cases, Caskets, Coffins, etc.</i>				
21	In the manufacture of goods,	2	2	7	2
22	In selling goods,	7	1	4	4
	<i>Buttons and Dress Trimmings.</i>				
23	In the manufacture of goods,	—	2	3	—
24	In selling goods,	—	3	3	—
	<i>Carpetings.</i>				
25	In the manufacture of goods,	4	7	2	3
26	In selling goods,	6	1	4	4
	<i>Carriages and Wagons.</i>				
27	In the manufacture of goods,	89	13	74	22
28	In selling goods,	101	7	60	11
	<i>Cement, Kaolin, Lime, and Plaster.</i>				
29	In the manufacture of goods,	3	3	4	1
30	In selling goods,	4	1	3	4
	<i>Charcoal and Kindlers.</i>				
31	In the manufacture of goods,	—	—	—	—
32	In selling goods,	—	—	—	—

COMPETITION IN THE MANUFACTURE AND SELLING OF GOODS:
BY INDUSTRIES.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
4	-	-	-	-	9	14	30	1
3	-	-	2	-	7	16	30	2
4	3	1	1	-	4	19	40	3
7	-	-	1	-	4	19	40	4
1	-	-	3	-	20	51	489	5
-	-	-	3	-	21	50	489	■
16	2	-	1	-	21	70	140	7
21	1	-	2	1	30	61	140	8
-	-	-	-	-	1	4	14	9
-	-	-	-	-	2	3	14	10
15	1	1	8	27	229	793	2,366	11
37	-	-	19	12	288	734	2,366	12
2	-	-	-	1	29	99	215	13
2	-	-	-	-	44	84	215	14
1	-	-	-	-	19	62	114	15
1	-	-	1	-	20	61	114	16
1	2	-	2	3	10	41	72	17
3	-	-	2	1	18	33	72	18
1	2	-	2	-	304	212	3,773	19
1	-	-	5	-	283	233	3,773	20
1	-	-	-	-	13	14	113	21
-	-	-	-	-	11	16	113	22
1	1	3	2	-	1	12	16	23
4	1	-	2	-	-	13	16	24
2	-	-	1	-	9	19	46	25
4	-	-	-	-	9	19	46	26
9	-	1	4	1	127	213	1,013	27
7	1	-	6	-	147	193	1,013	28
-	-	-	1	-	3	12	16	29
-	-	-	-	-	3	12	16	30
-	-	-	-	-	2	-	11	31
-	-	-	-	-	2	-	11	32

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN —			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Chemical Preparations (Compounded).</i>				
1	In the manufacture of goods,	1	—	4	—
2	In selling goods,	—	2	5	—
	<i>Clocks and Watches.</i>				
3	In the manufacture of goods,	—	1	4	—
4	In selling goods,	1	—	—	—
	<i>Clothing.</i>				
5	In the manufacture of goods,	136	23	66	19
6	In selling goods,	175	17	56	16
	<i>Concrete Walks, Paving, etc.</i>				
7	In the manufacture of goods,	2	—	1	1
8	In selling goods,	1	—	1	—
	<i>Cooking, Lighting, and Heating Apparatus.</i>				
9	In the manufacture of goods,	9	5	9	8
10	In selling goods,	4	3	9	9
	<i>Cordage and Twine.</i>				
11	In the manufacture of goods,	5	5	9	4
12	In selling goods,	7	4	8	3
	<i>Corks, Bungs, and Taps.</i>				
13	In the manufacture of goods,	—	—	1	—
14	In selling goods,	1	—	—	—
	<i>Cotton Goods.</i>				
15	In the manufacture of goods,	16	9	19	63
16	In selling goods,	15	23	34	27
	<i>Cotton, Woollen, and Other Textiles.</i>				
17	In the manufacture of goods,	—	—	—	1
18	In selling goods,	—	1	1	—
	<i>Crayons, Pencils, Crucibles, etc.</i>				
19	In the manufacture of goods,	—	4	3	—
20	In selling goods,	—	2	2	1.
	<i>Drugs and Medicines.</i>				
21	In the manufacture of goods,	53	9	8	8
22	In selling goods,	101	5	13	8
	<i>Dyestuffs.</i>				
23	In the manufacture of goods,	—	1	3	1
24	In selling goods,	1	—	3	—
	<i>Earthen, Plaster, and Stone Ware.</i>				
25	In the manufacture of goods,	—	3	3	1
26	In selling goods,	2	2	2	2
	<i>Electrical Apparatus and Appliances.</i>				
27	In the manufacture of goods,	5	6	1	1
28	In selling goods,	6	5	—	1
	<i>Electroplating.</i>				
29	In the manufacture of goods,	2	2	4	—
30	In selling goods,	3	1	3	—
	<i>Emery and Sand Paper and Cloth, etc.</i>				
31	In the manufacture of goods,	—	2	2	2
32	In selling goods,	—	—	1	2

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
-	3	-	1	-	1	9	23	1
-	1	-	1	-	1	9	23	2
-	2	-	1	1	-	9	47	3
2	1	-	-	1	4	5	47	4
8	2	-	9	4	148	267	2,402	5
13	-	-	10	1	127	288	2,402	6
-	-	-	-	-	4	4	20	7
-	-	-	1	-	5	3	20	8
3	-	-	-	-	6	34	65	9
4	-	-	-	1	10	30	65	10
4	1	-	1	-	7	29	52	11
5	-	-	1	-	8	28	52	12
-	1	-	-	-	-	2	4	13
1	-	-	-	-	-	2	4	14
10	4	1	2	1	23	125	165	15
13	1	-	3	-	32	116	165	16
-	-	-	1	-	2	2	4	17
-	-	-	1	-	1	3	4	18
-	-	-	-	-	-	7	7	19
-	-	-	-	-	2	5	7	20
7	-	-	5	-	135	90	916	21
12	-	-	5	-	81	144	916	22
1	1	-	-	-	-	7	9	23
2	-	-	-	-	1	6	9	24
1	2	-	2	-	4	12	22	25
-	-	-	2	-	6	10	22	26
-	-	-	-	-	0	13	40	27
-	-	-	1	-	9	13	40	28
-	-	-	-	-	1	8	35	29
-	-	-	-	-	2	7	35	30
5	-	-	1	-	-	12	13	31
6	-	-	1	-	2	10	13	32

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Fancy Articles.</i>				
1	In the manufacture of goods,	1	—	3	1
2	In selling goods,	2	—	2	1
	<i>Fertilizers.</i>				
3	In the manufacture of goods,	1	—	5	2
4	In selling goods,	1	—	2	5
	<i>Fine Arts and Taxidermy.</i>				
5	In the manufacture of goods,	2	—	3	—
6	In selling goods,	2	—	3	—
	<i>Fireworks and Matches.</i>				
7	In the manufacture of goods,	—	1	1	1
8	In selling goods,	1	—	1	1
	<i>Flax, Hemp, and Jute Goods.</i>				
9	In the manufacture of goods,	—	2	—	1
10	In selling goods,	—	2	1	—
	<i>Food Preparations.</i>				
11	In the manufacture of goods,	172	33	119	21
12	In selling goods,	218	15	111	21
	<i>Furniture.</i>				
13	In the manufacture of goods,	47	22	51	54
14	In selling goods,	48	16	38	46
	<i>Gas and Residual Products.</i>				
15	In the manufacture of goods,	1	—	—	1
16	In selling goods,	—	—	—	1
	<i>Glass.</i>				
17	In the manufacture of goods,	—	5	2	1
18	In selling goods,	1	2	3	1
	<i>Glue, Isinglass, and Starch.</i>				
19	In the manufacture of goods,	2	—	5	5
20	In selling goods,	—	1	4	7
	<i>Hair Work (Animal and Human).</i>				
21	In the manufacture of goods,	1	3	3	—
22	In selling goods,	1	1	3	2
	<i>Hose: Rubber, Linen, etc.</i>				
23	In the manufacture of goods,	—	—	1	—
24	In selling goods,	—	—	—	1
	<i>Hosiery and Knit Goods.</i>				
25	In the manufacture of goods,	3	7	9	6
26	In selling goods,	—	9	11	3
	<i>Ink, Mucilage, and Paste.</i>				
27	In the manufacture of goods,	—	3	2	—
28	In selling goods,	1	1	—	1
	<i>Ivory, Bone, Shell, and Horn Goods, etc.</i>				
29	In the manufacture of goods,	11	4	8	—
30	In selling goods,	2	7	9	1
	<i>Jewelry Burnishing and Lapidary Work.</i>				
31	In the manufacture of goods,	—	—	—	—
32	In selling goods,	—	—	1	—

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
-	-	-	-	-	-	5	18	1
-	-	-	-	-	-	5	18	2
-	-	-	-	-	11	8	17	3
1	-	-	-	-	5	9	17	4
-	-	-	-	-	2	5	23	5
-	-	-	-	-	2	5	23	6
-	-	-	-	-	1	3	5	7
-	-	-	-	-	1	3	5	8
-	1	1	1	-	1	6	9	9
2	-	-	1	-	1	6	9	10
9	2	-	16	-	242	372	1,711	11
15	-	-	19	-	215	399	1,711	12
7	1	-	2	-	55	184	603	13
16	-	-	11	1	63	176	603	14
-	-	-	-	-	43	2	66	15
-	-	-	-	-	44	1	66	16
-	1	-	1	-	1	10	20	17
-	-	-	1	-	3	8	20	18
1	1	-	3	-	6	17	29	19
2	-	1	2	-	6	17	29	20
-	-	-	-	-	4	7	55	21
1	-	-	-	-	3	8	55	22
1	-	-	-	-	-	2	3	23
1	-	-	-	-	-	2	3	24
1	3	-	-	-	9	29	60	25
3	1	-	-	-	11	27	60	26
2	-	-	1	-	1	8	20	27
2	-	1	1	-	2	7	20	28
2	1	-	-	-	5	26	39	29
4	-	-	1	-	7	24	39	30
-	1	-	-	-	1	1	7	31
-	-	-	-	-	1	1	7	32

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN —			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Leather.</i>				
1	In the manufacture of goods,	105	20	84	21
2	In selling goods,	73	10	138	18
	<i>Linen.</i>				
3	In the manufacture of goods,	—	—	—	—
4	In selling goods,	—	—	—	—
	<i>Liquors and Beverages (Not Spirituous).</i>				
5	In the manufacture of goods,	18	1	5	1
6	In selling goods,	20	1	5	—
	<i>Liquors: Malt, Distilled, and Fermented.</i>				
7	In the manufacture of goods,	23	4	13	8
8	In selling goods,	22	4	13	8
	<i>Lumber.</i>				
9	In the manufacture of goods,	30	4	40	7
10	In selling goods,	19	3	43	2
	<i>Machines and Machinery.</i>				
11	In the manufacture of goods,	64	41	72	55
12	In selling goods,	51	21	55	56
	<i>Metals and Metallic Goods.</i>				
13	In the manufacture of goods,	191	106	147	51
14	In selling goods,	214	60	128	53
	<i>Mixed Textiles.</i>				
15	In the manufacture of goods,	—	—	2	3
16	In selling goods,	—	2	3	2
	<i>Models and Patterns.</i>				
17	In the manufacture of goods,	13	2	5	2
18	In selling goods,	8	1	5	2
	<i>Musical Instruments and Materials.</i>				
19	In the manufacture of goods,	7	12	15	5
20	In selling goods,	5	8	8	7
	<i>Oils and Illuminating Fluids.</i>				
21	In the manufacture of goods,	8	—	2	—
22	In selling goods,	2	4	2	1
	<i>Paints, Colors, and Crude Chemicals.</i>				
23	In the manufacture of goods,	2	6	4	—
24	In selling goods,	3	5	3	—
	<i>Paper and Paper Goods.</i>				
25	In the manufacture of goods,	9	7	42	16
26	In selling goods,	5	19	20	12
	<i>Perfumes, Toilet Articles, etc.</i>				
27	In the manufacture of goods,	—	1	1	—
28	In selling goods,	—	1	—	—
	<i>Photographs and Photographic Materials.</i>				
29	In the manufacture of goods,	30	3	3	—
30	In selling goods,	28	1	1	—
	<i>Polishes and Dressing.</i>				
31	In the manufacture of goods,	8	6	11	3
32	In selling goods,	2	2	8	5

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
9	-	-	3	46	91	288	699	1
10	-	-	4	5	121	258	699	2
-	1	-	1	-	-	2	3	3
2	-	-	-	-	-	2	3	4
1	-	-	1	-	9	27	63	5
1	1	-	-	-	8	28	63	6
-	-	-	1	1	36	50	218	7
1	-	-	1	1	36	50	218	8
1	1	-	2	1	83	86	466	9
1	1	-	3	-	97	72	466	10
42	8	1	9	4	92	296	622	11
62	2	-	11	9	121	267	622	12
36	3	-	17	4	346	555	2,732	13
70	1	-	26	2	347	534	2,732	14
2	1	-	1	-	2	9	13	15
3	-	-	-	-	1	10	13	16
-	-	-	-	-	2	22	51	17
1	-	-	-	-	7	17	51	18
6	4	-	3	-	9	52	93	19
14	-	-	2	-	17	44	93	20
-	1	-	1	-	3	12	28	21
-	1	-	2	-	3	12	28	22
1	-	-	1	-	-	14	22	23
1	-	-	2	-	-	14	22	24
7	1	1	7	6	19	96	148	25
16	1	-	9	7	26	89	148	26
1	-	1	1	-	2	5	10	27
2	-	-	-	-	4	3	10	28
1	1	-	-	-	22	38	241	29
2	-	-	1	-	27	33	241	30
5	-	-	-	-	5	33	65	31
5	-	-	4	-	12	26	65	32

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Printing, Publishing, and Bookbinding.</i>				
1	In the manufacture of goods,	9	3	2	1
2	In selling goods,	7	—	1	1
	<i>Print Works, Dye Works, and Bleacheries.</i>				
3	In the manufacture of goods,	1	—	1	1
4	In selling goods,	—	1	1	—
	<i>Railroad Construction.</i>				
5	In the manufacture of goods,	—	—	—	2
6	In selling goods,	—	—	—	2
	<i>Rubber and Elastic Goods.</i>				
7	In the manufacture of goods,	2	2	6	5
8	In selling goods,	—	5	4	5
	<i>Salt.</i>				
9	In the manufacture of goods,	—	—	—	—
10	In selling goods,	—	—	—	—
	<i>Scientific Instruments and Appliances.</i>				
11	In the manufacture of goods,	1	9	6	1
12	In selling goods,	1	7	10	2
	<i>Shipbuilding.</i>				
13	In the manufacture of goods,	3	—	1	—
14	In selling goods,	3	—	—	—
	<i>Silk and Silk Goods.</i>				
15	In the manufacture of goods,	1	1	3	1
16	In selling goods,	—	1	2	2
	<i>Sporting and Athletic Goods.</i>				
17	In the manufacture of goods,	1	3	3	4
18	In selling goods,	3	2	2	3
	<i>Stone.</i>				
19	In the manufacture of goods,	100	17	53	13
20	In selling goods,	73	19	35	10
	<i>Straw and Palm Leaf Goods.</i>				
21	In the manufacture of goods,	1	4	16	2
22	In selling goods,	1	9	11	1
	<i>Tallow, Candles, Soap, and Grease.</i>				
23	In the manufacture of goods,	17	3	25	8
24	In selling goods,	18	2	17	9
	<i>Tobacco, Snuff, and Cigars.</i>				
25	In the manufacture of goods,	35	9	66	5
26	In selling goods,	53	2	28	15
	<i>Toys and Games (Children's).</i>				
27	In the manufacture of goods,	1	2	3	1
28	In selling goods,	—	1	3	—
	<i>Trunks and Valises.</i>				
29	In the manufacture of goods,	1	3	2	1
30	In selling goods,	3	1	2	2
	<i>Whips, Lashes, and Stocks.</i>				
31	In the manufacture of goods,	14	2	12	2
32	In selling goods,	5	—	10	4

Competition in the Manufacture and Selling of Goods: By Industries
— Continued.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN—						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
3	-	-	2	-	5	20	712	1
3	-	-	1	1	11	14	712	2
1	-	-	-	-	3	4	96	3
1	-	-	-	-	4	3	96	4
1	-	-	1	-	4	4	75	5
1	-	-	1	-	4	4	15	6
8	-	1	1	-	2	25	41	7
10	-	-	-	-	3	24	41	8
-	-	-	-	-	2	-	5	9
-	-	-	-	-	2	-	5	10
4	2	-	-	-	8	23	65	11
3	-	-	2	-	6	25	65	12
-	-	-	-	-	3	4	279	13
-	-	-	-	-	4	3	279	14
2	-	1	-	-	1	9	12	15
3	-	-	1	-	1	9	12	16
2	1	-	1	-	-	15	27	17
3	-	-	1	-	1	14	27	18
3	1	-	1	2	54	190	378	19
8	1	-	5	1	94	150	378	20
-	-	-	-	-	3	23	47	21
1	-	-	-	-	3	23	47	22
9	1	-	2	-	26	65	155	23
4	1	-	5	-	35	56	155	24
5	-	-	5	1	43	126	302	25
4	-	-	7	2	58	111	302	26
1	-	-	-	-	2	8	15	27
3	-	-	1	-	2	8	15	28
-	-	-	-	-	2	7	25	29
-	-	-	-	-	1	8	25	30
1	-	-	1	2	4	34	60	31
7	-	1	2	1	8	30	60	32

Competition in the Manufacture and Selling of Goods: By Industries
— Concluded.

	INDUSTRIES, AND NATURE OF COMPETITION.	NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN —			
		Own City or Town in Mass. and Vicinity (Local)	Cities and Towns in Mass. (Specified)	Other States (Specified)	Sections of the United States (Specified)
	<i>Wooden Goods.</i>				
1	In the manufacture of goods,	66	17	71	34
2	In selling goods,	72	12	63	17
	<i>Woollen Goods.</i>				
3	In the manufacture of goods,	2	3	22	57
4	In selling goods,	—	18	69	13
	<i>Worsted Goods.</i>				
5	In the manufacture of goods,	—	1	3	4
6	In selling goods,	—	6	4	2

A perusal of the table will make plain, for each industry, the classified locality in which competition is most marked, as regards both the manufacture and the selling of goods. It seems unnecessary to repeat in text the facts presented in the table, and we shall close the consideration of the subject with a short analysis of the —

RECAPITULATION. ALL INDUSTRIES.

CLASSIFICATION OF LOCALITIES.	ESTABLISHMENTS REPORTING COMPETITION WITH SPECIFIED LOCALITIES IN —			
	the Manufacture of Goods		the Selling of Goods	
	Number	Percent- ages	Number	Percent- ages
Own City or Town and Vicinity (Local),	1,820	33.54	1,860	35.79
Cities and Towns in Massachusetts (Specified),	536	9.92	426	8.20
Other States (Specified),	1,695	31.24	1,555	29.93
Sections of the United States (Specified),	733	13.47	623	11.99
The United States (Not Specified),	293	5.40	456	8.77
Foreign Countries (Specified),	75	1.38	17	0.33
Foreign Countries (Not Specified),	16	0.29	3	0.06
The United States and Foreign Countries (Not Specified),	143	2.64	201	3.87
Various Causes (Specified),	115	2.12	55	1.06
TOTALS,	5,426	100.00	5,196	100.00

In the recapitulation we have omitted 2,509 establishments that reported as to markets but did not report as to competition in the manufacture of goods, and 2,739 establishments

Competition in the Manufacture and Selling of Goods: By Industries
— Concluded.

NUMBER OF ESTABLISHMENTS REPORTING COMPETITION IN —						TOTALS		
The United States (Not Specified)	Foreign Countries (Specified)	Foreign Countries (Not Specified)	The United States and Foreign Countries (Not Specified)	Various Causes (Specified)	Not Given and Indefinite	Number of Establishments Reporting as to Competition	Whole Number of Establishments	
3	—	—	2	4	72	197	534	1
4	—	—	4	3	94	175	534	2
18	7	2	5	6	33	122	189	3
14	1	—	1	5	34	121	189	4
—	4	1	2	—	3	15	23	5
3	—	—	—	—	3	15	23	6

that reported as to markets but did not report as to competition in the selling of goods. Compared with 23,431, the whole number of establishments engaged in manufacturing and mechanical industries in the Census year 1885, we find that 5,426, or 23.16 per cent, reported as to competition in the manufacture of goods, and 5,196, or 22.18 per cent, reported as to competition in the selling of goods.

Referring again to the recapitulation for All Industries, we learn that 33.54 per cent of the establishments report that their principal competition in the manufacture of goods is local; while 31.24 per cent report the principal competition in the manufacture of goods as being in other States of the Union. As regards competition in the selling of goods, 35.79 per cent of the establishments state that it is local, while 29.93 per cent locate it in other States of the Union. By examining the classification of localities in connection with each industry, the distribution of both forms of competition, as regards each industry, may be easily determined.

We present, in condensed form, the general results arrived at in the various divisions of this Part.

MARKETS.

1. Compared with 23,431, the whole number of establishments engaged in manufacturing and mechanical industries in the Census year 1885, there were 7,935 establishments, or 33.87 per cent, (one-third) that reported as to Markets; the value of the annual product of these establishments was \$464,319,253, or 68.83 per cent (two-thirds) of \$674,634,269, the total value of all goods manufactured during the Census year.

2. Of the 7,935 establishments reporting as to Markets, with an annual product valued at \$464,319,253, there were 4,444 establishments, or 56 per cent, that sold principally in local markets goods worth \$116,249,763, or 25.04 per cent of the value of the product of all establishments reporting as to Markets.

3. There were 3,288 establishments, or 41.44 per cent, that sold principally in home markets goods worth \$318,637,982, or 68.62 per cent of the value of the product of all establishments reporting as to Markets.

4. There were 203 establishments, or 2.56 per cent, that sold principally in foreign markets goods worth \$29,431,508, or 6.34 per cent of the value of the product of all establishments reporting as to Markets.

5. Combining the returns for local and home markets, there were 7,732 establishments, or 97.44 per cent, that sold principally in local and home markets goods worth \$434,887,745, or 93.66 per cent of the value of the product of all establishments reporting as to Markets.

TRANSPORTATION.

1. The average or State rate paid for freight on purchases of raw materials or other stock used was 1.88 per cent of the value of the goods manufactured — or \$12,683,124 on a total product valued at \$674,634,269.

2. *The average or State rate paid for freight on goods sold was 1.12 per cent of the value of the goods manufactured — or \$7,555,903 on a total product valued at \$674,634,269.*

3. *The combined average or State rate paid for freight on purchases of raw materials or other stock used, and on goods sold, was three per cent of the value of the goods manufactured — or \$20,239,027 on a total product valued at \$674,634,269.*

4. *The average cost of transportation for all kinds of manufactured articles ran from \$2.83 to \$16.26 per ton. Considering that \$20 per ton is one cent per pound, the average cost of transportation to localities in Massachusetts was less than one-quarter of a cent per pound; to localities in the Middle States, less than one-third of a cent per pound; to localities in the Western States, not quite one-half of a cent per pound; while the general average cost of transportation to all localities was less than one-third of a cent per pound.*

5. *The average value per ton of all kinds of manufactured articles was \$201.67, and the average cost of transportation was \$6.05, the cost of transportation being three per cent of the value of the goods carried.*

IMPORTS.

1. *Of the 23,431 establishments engaged in manufacturing and mechanical industries in the Census year 1885, the proprietors of 15.71 per cent, manufacturing 33.32 per cent of the total product, stated that their sales were not decreased by the importation of foreign-made goods.*

2. *The proprietors of 5.62 per cent of the establishments, manufacturing 19.74 per cent of the total product, stated that their sales were decreased by the importation of foreign-made goods.*

3. *The proprietors of 78.67 per cent of the establishments, manufacturing 46.94 per cent of the total product, did not state the effect produced upon their sales by the importation of foreign-made goods.*

4. *Considered on the basis of industries, 83 in number, for 24 industries no decrease in sales was reported; for 20 indus-*

tries a decrease in sales was reported; while for 39 industries the effect produced upon sales by the importation of foreign-made goods was not stated.

EXPORTS.

1. Of the 23,431 establishments engaged in manufacturing and mechanical industries in the Census year 1885, 4.75 per cent reported that they sold goods to foreign countries. The value of such exports annually was \$20,374,132, or 3.02 per cent of the total value of goods manufactured annually in all establishments.

2. The total value of goods manufactured annually by the establishments engaged in the export trade was \$92,986,931, being 13.78 per cent of the total value of goods manufactured annually in all establishments. The value of the goods sold to foreign countries, \$20,374,132, was 21.91 per cent of the total value of goods manufactured by the establishments that exported goods.

3. Of the 83 industries, 71 sold goods to foreign countries, while 12 had no export trade.

COMPETITION.

1. Of the whole number of establishments reporting as to Competition in the manufacture of goods, the proprietors of 43.46 per cent state that their principal competition is met with in the cities and towns in which they are located, and other cities and towns in Massachusetts. The proprietors of 50.11 per cent of the establishments state that their principal competition is with cities and towns in the other States of the Union. The minor fields of competition are Foreign Countries, reported by 1.67 per cent of the proprietors; the United States and Foreign Countries, by 2.64 per cent; and various causes of competition are reported by 2.12 per cent.

2. Of the whole number of establishments reporting as to Competition in the selling of goods, the proprietors of 43.99 per cent state that their principal competition is met with in the cities and towns in which they are located, and other cities and towns in Massachusetts. The proprietors of 50.69 per cent of

the establishments state that their principal competition is with cities and towns in the other States of the Union. The minor fields of competition are Foreign Countries, reported by 0.39 per cent of the proprietors; the United States and Foreign Countries, by 3.87 per cent; and various causes of competition are reported by 1.06 per cent.

PART III.

CONDITION OF EMPLOYÉS.

PART III.

CONDITION OF EMPLOYÉS.

The title chosen for this Part is a most comprehensive one, and the reader might reasonably expect it to contain an exhaustive presentation and consideration of the condition of workingmen as regards their homes, social environment, and employments. If the subject had never before been considered in the Bureau reports, such an exhaustive treatment would be demanded, but so much has been presented in previous years that this Part is necessarily limited as regards the field covered, and much presented therein is by way of addition to information previously supplied.

The subjects considered in this Part are —

Relief Funds.

Libraries, Reading Rooms, etc.

Profit Sharing.

Hired Dwellings.

Rent and Board.

Dwellings Owned by Employés.

The information presented hereinafter under these heads was mainly derived from a schedule of inquiries sent to manufacturers and replied to voluntarily by them. All the manufacturers to whom the schedule was sent did not reply, but it is impossible for the Bureau to know whether those who did not answer had information to impart and should have supplied it, or whether their failure to reply was due to the fact that

they had no information which, in their opinion, would be of value to this office. With such limitations, which could not be avoided, the results cannot be positively called exhaustive; but the information secured is a distinct addition to what is already in print, and of sufficient value to warrant its presentation here.

RELIEF FUNDS.

The inquiries made of manufacturers upon this subject were as follows :

1. Amount of fund for the relief of sick or disabled employes of this establishment, or the families of those killed by accident?
2. Annual amount paid out in benefits?
3. How is this fund raised?

Replies were sent in by 101 manufacturers located in 49 cities and towns. In the following text presentation by counties, and in other similar presentations in this Part, the names of cities are printed in SMALL CAPITAL letters, and the names of towns in "Roman."

BARNSTABLE COUNTY. — No returns.

BERKSHIRE COUNTY. — Dalton, Great Barrington, Lee, and Pittsfield.

BRISTOL COUNTY. — Attleborough, FALL RIVER, Mansfield, NEW BEDFORD, and TAUNTON.

DUKES COUNTY. — No returns.

ESSEX COUNTY. — Beverly, Danvers, GLOUCESTER, HAVERHILL, LAWRENCE, LYNN, NEWBURYPORT, Peabody, and Rockport.

FRANKLIN COUNTY. — Greenfield and Montague.

HAMPDEN COUNTY. — Chicopee, Granville, HOLYOKE, Monson, Westfield, and West Springfield.

HAMPSHIRE COUNTY. — Amherst.

MIDDLESEX COUNTY. — Acton, CAMBRIDGE, LOWELL, NEWTON, WALTHAM, Watertown, and WOBURN.

NANTUCKET COUNTY. — No returns.

NORFOLK COUNTY. — Norwood, QUINCY, and Wrentham.

PLYMOUTH COUNTY. — BROCKTON, Plymouth, and Whitman.

SUFFOLK COUNTY. — BOSTON and CHELSEA.

WORCESTER COUNTY. — Gardner, Harvard, Milford, Millbury, Northbridge, Westborough, and WORCESTER.

The following county recapitulation shows the whole number of cities and towns in each county, and the respective number in which relief funds have been established.

THE STATE, AND COUNTIES.	Whole Number of Cities and Towns	Number of Cities and Towns having Relief Funds
THE STATE.	351	49
Barnstable,	15	-
Berkshire,	32	4
Bristol,	20	5
Dukes,	6	-
Essex,	35	9
Franklin,	26	2
Hampden,	22	6
Hampshire,	23	1
Middlesex,	54	7
Nantucket,	1	-
Norfolk,	27	3
Plymouth,	27	3
Suffolk,	4	2
Worcester,	59	7

The 49 cities and towns in which relief funds exist form 13.96 per cent of all the cities and towns in the Commonwealth.

Of the 83 manufacturing and mechanical industries in the State, 31, which are named below, are provided with some form of relief fund.

Arms and Ammunition.
 Artisans' Tools.
 Boots and Shoes.
 Boxes (Paper and Wooden).
 Building.
 Clocks and Watches.
 Clothing.
 Cooking, Lighting, and Heating Apparatus.
 Cordage and Twine.
 Cotton Goods.
 Drugs and Medicines.
 Earthen, Plaster, and Stone Ware.
 Food Preparations.
 Gas and Residual Products.
 Glue, Isinglass, and Starch.
 Leather.

Liquors and Beverages (Not Spirituous).
 Lumber.
 Machines and Machinery.
 Metals and Metallic Goods.
 Musical Instruments and Materials.
 Oils and Illuminating Fluids.
 Paper and Paper Goods.
 Printing, Publishing, and Bookbinding.
 Print Works, Dye Works, and Bleacheries.
 Railroad Construction.
 Sporting and Athletic Goods.
 Stone.
 Tobacco, Snuff, and Cigars.
 Wooden Goods.
 Worsted Goods.

The permanent invested fund amounts to \$29,472. The amount paid out in benefits in one year was \$19,884. Of

course the sum paid out could not all have been derived from the invested fund, which, at six per cent, would have supplied but \$1,768.32. The answers show that this sum was supplemented in the following ways: by assessments upon employes called for at the time of accident or death, or paid into associations to which the employes belong; by subscriptions; and by aid from employers, including cash contributions, pay for lost time, doctor's bills, and hospital accommodations. In some cases the fines exacted when employes are late are set aside for this purpose. One instance is reported of accident insurance policies on 18 employes being paid for by the corporation by which they were employed. Those in charge of boilers often carry accident or life insurance policies.

The amount mentioned may seem small and the information supplied meagre, but it should be borne in mind that an employers' liability law for personal injuries to their employes is in operation in Massachusetts which provides for many cases of death or disability. The workingmen and members of their families are also largely connected with societies which pay sick benefits, with assessment life insurance companies, and rates are now so low in the regular premium life and accident insurance companies that many employes are able to carry policies therein.

The following subjects, which are directly or indirectly connected with the question of relief funds, have been considered in previous reports of this Bureau: Accidents; Report for 1872 and Vol. II., Census of 1885. Condition of textile fabric manufactories in Massachusetts and digest of laws relative to machinery and sanitary matters; Report for 1874. Special effects of certain forms of employment upon female health, and factory legislation; Report for 1875. Massachusetts manufactories: persons employed in each story, and their means of escape in case of fire; Report for 1877. Employers' liability for personal injuries to their employees; Report for 1883. The law now in force in this State in relation to the liability of employers meets with the approval of the workingmen, as is shown by the following resolve adopted at the Convention of the American Federation of Labor held in Boston December 13, 1889.

Resolved, that the principles of the employers' liability bill of Massachusetts ought to be adopted in every state, and every employer ought to be liable for personal injuries received by an employé in the usual discharge of his duties while obeying the orders of the superintendent over him.

LIBRARIES, READING ROOMS, ETC.

The inquiries in relation to libraries, reading rooms, halls, and other means of education, exercise, amusement, etc., were not general in their nature but related particularly to those provided for and used by the employés of the establishments for which returns were made. The questions upon the schedule read as follows :

1. Number of volumes in the library maintained especially for the use of the employés of this establishment ?
2. Is there a reading room, hall, or other means of education, exercise, amusement, etc., maintained especially for the use of the employés of this establishment ?

Answers to the above were received from 80 manufacturers doing business in 52 different cities and towns. These places are classified alphabetically, under county heads, in the statement given below.

BARNSTABLE COUNTY. — Yarmouth.

BERKSHIRE COUNTY. — Cheshire, Dalton, Florida, Great Barrington, Lee, North Adams, Pittsfield, and Williamstown.

BRISTOL COUNTY. — Attleborough, FALL RIVER, Mansfield, TAUNTON, and Westport.

DUKES COUNTY. — No returns.

ESSEX COUNTY. — Andover, Beverly, Georgetown, Groveland, HAVERHILL, LAWRENCE, and LYNN.

FRANKLIN COUNTY. — No returns.

HAMPDEN COUNTY. — Blandford, Ludlow, Russell, SPRINGFIELD, and West Springfield.

HAMPSHIRE COUNTY. — Ware.

MIDDLESEX COUNTY. — Billerica, CAMBRIDGE, Everett, Hopkinton, LOWELL, NEWTON, Stow, and Westford.

NANTUCKET COUNTY. — No returns.

NORFOLK COUNTY. — Braintree, Foxborough, and Walpole.

PLYMOUTH COUNTY. — Carver, Plymouth, and Rochester.

SUFFOLK COUNTY. — BOSTON and CHELSEA.

WORCESTER COUNTY. — Ashburnham, FITCHBURG, Harvard, Leicesters, Templeton, Upton, Westborough, Winchendon, and WORCESTER.

We present a county recapitulation.

THE STATE, AND COUNTIES.	Whole Number of Cities and Towns	Number of Cities and Towns having Libraries, Reading Rooms, etc.
THE STATE.	551	52
Barnstable,	15	1
Berkshire,	32	8
Bristol,	20	5
Dukes,	6	—
Essex,	35	7
Franklin,	26	—
Hampden,	22	5
Hampshire,	23	1
Middlesex,	54	8
Nantucket,	1	—
Norfolk,	27	3
Plymouth,	27	3
Suffolk,	4	2
Worcester,	59	9

These 52 cities and towns form 14.81 per cent of all the cities and towns in the State.

The 29 industries named below are represented in the returns, proprietors in each having provided for their employes either a library, reading room, hall, or some opportunity for education, exercise, or amusement.

Artificial Teeth and Dental Work.
Boots and Shoes.
Brick, Tiles, and Sewer Pipe.
Brooms, Brushes, and Mops.
Building.
Burial Cases, Caskets, Coffins, etc.
Chemical Preparations (Compound-
ed).
Clothing.
Cooking, Lighting, and Heating Ap-
paratus.
Cordage and Twine.
Cotton Goods.
Drugs and Medicines.
Flax, Hemp, and Jute Goods.
Food Preparations.
Gas and Residual Products.

Hair Work (Animal and Human).
Leather.
Linen.
Lumber.
Machines and Machinery.
Metals and Metallic Goods.
Oils and Illuminating Fluids.
Paper and Paper Goods.
Printing, Publishing, and Bookbind-
ing.
Print Works, Dye Works, and
Bleacheries.
Railroad Construction.
Straw and Palm Leaf Goods.
Woollen Goods.
Worsted Goods.

Of the 80 manufacturers answering, 43 stated that they had supplied libraries for the use of their employés. The whole number of volumes in these 43 libraries was 19,501, or an average to each of about 453 volumes.

The answers to the second inquiry covered a wide range. They are presented below in a condensed form.

In one instance a library is being formed but no permanent hall is, as yet, secured; day and night schools are maintained, and newspapers provided free of expense; in one case a reading room is maintained, provided with newspapers and magazines, and heated and lighted; in another instance a library and hall are maintained from the proceeds of a fund left by will; there are several instances of free halls, reading rooms, and playgrounds, or places for exercise; in one village there is a club house for the operatives; one manufacturer has equipped a laboratory for the use of his employés; one furnishes lyceum entertainments free of expense, and another provides musical instruments for use at home.

As in the case of Relief Funds, the returns seem small when the wide field for such work is considered. But it must be remembered that the spirit of Americanism governs the workingman of Massachusetts in matters of education and amusement. As regards education, he wishes the best for his children, and the public schools supply an unexcelled standard. It is only in exceptional cases that there is any need of supplementing the educational work of the State. In the matter of amusements, he wishes to make his own selection, and to pay for his own entertainment, rather than to have his employers supply him with amusements at their discretion. He appreciates the public library, the free reading room, and, in some cases, the free hall. He obtains social opportunities in the myriad societies, granges, associations, orders, etc., which are found in every city and all the larger manufacturing towns. The cities have their parks and the towns their "commons" or "village greens" where opportunities for exercise may be found. The national game of base ball has its adherents in even the smallest towns, and, during the summer, the evening and Saturday afternoon games supply amusement to both players and spectators. The attention of the reader is called particularly to an article upon "The Social Life of Workingmen" in the Bureau

report for 1880. In that article, the following subjects are considered: the causes of gain and loss in town and city populations; answers from towns and cities relative to social life; social opportunities and life in towns and cities compared; relation of social opportunities to changes in population of towns; how to improve our social life; workingmen's clubs; Sunday recreation for the people.

We quote the following from the Part in question:

"The primary object of our investigation was 'to show the relative social opportunities afforded workingmen in the country and in the city,' and we consider that the statistics and information presented do this as satisfactorily as could be expected. We learn that the cities have remarkably good social opportunities, which confirms the general impression. We also learn that the towns make a good comparative showing, which is probably at variance with the prevailing opinion."

"The second object of the investigation was to show, if possible, the real influence of social life in country towns in causing the departure of the town-born population for larger towns and cities. The statistics and information obtained, while not fully conclusive, indicate that, although the 'defective social element of our country life' is a cause for the migration of the country-born population, it is by no means the most efficient cause. The prime cause is undoubtedly the wish to secure remunerative employment and a chance to get ahead in the world. It is the business ambition of the young men and women which leads them to 'go West,' and also to gather at the manufacturing and mercantile centres."

In order to show the opportunities enjoyed by workingmen in the way of free public libraries, we present a list drawn from the Census returns for 1885, stating also the total number of books in each library at the time of the enumeration, which information was not printed in the Census report.

THE FREE PUBLIC LIBRARIES OF MASSACHUSETTS IN 1885.

COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books	COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books
BARNSTABLE.		DUKES.	
Barnstable,	10,950	Cottage City,	1,097
Sturgis Library,	9,750	Cottage City Library Association,	1,097
Osterville Public Library,	1,200	Tisbury,	59
Eastham,	652	West Tisbury Library,	59
Eastham Public Library,	652		
Harwich,	5,000	ESSEX.	
Broadbrook's Free Library,	5,000	Amesbury,	5,000
Orleans,	1,621	Amesbury and Salisbury Public Library,	5,000
Snow Library,	1,621	Andover,	16,413
Provincetown,	3,346	Memorial Hall Library,	14,883
Provincetown Public Library,	3,346	Bradlee Library,	1,530
Yarmouth,	3,099	Beverly,	10,017
Yarmouth Library,	3,099	Beverly Public Library,	10,017
BERKSHIRE.		Boxford,	2,098
Adams,	3,435	Boxford First Parish Library,	1,453
Adams Free Library,	3,435	West Boxford Public Library,	645
Dalton,	1,950	Danvers,	11,503
Dalton Free Public Library,	1,250	Peabody Institute Library,	11,503
Crane Library,	700	Georgetown,	6,400
Great Barrington,	8,800	Georgetown Peabody Library,	6,400
Great Barrington Free Library,	3,200	GLOUCESTER,	7,500
Cone Library,	5,600	Gloucester Lyceum and Sawyer Free Library,	7,500
Hinsdale,	4,035	Haverhill,	40,033
Public Library Association,	4,035	Haverhill Public Library,	40,033
Lanesborough,	1,200	Ipswich,	10,500
Lanesborough Town Library,	1,200	Free Public Library,	10,500
Lee,	4,299	LAWRENCE,	30,816
Lee Public Library,	3,520	Lawrence Free Public Library,	30,816
Town Library,	779	LYNN,	38,660
Lenox,	6,502	Lynn Free Public Library,	38,660
Lenox Library,	6,502	Manchester,	4,390
North Adams,	5,777	Manchester Public Library,	4,390
North Adams Public Library,	5,777	Marblehead,	8,156
Pittsfield,	18,000	Abbot Public Library,	8,156
Berkshire Athenæum Library,	18,000	Merrimac,	4,000
Savoy,	293	Merrimac Public Library,	4,000
Fourth District Library,	68	Methuen,	11,925
Orren Perkins Library,	225	Methuen Public Library,	2,300
Stockbridge,	6,100	Nevins Memorial Library,	9,625
Stockbridge Social Library,	6,100	Middleton,	3,400
Williamstown,	4,629	Flint Public Library,	3,400
Blackinton Library,	2,000	Nahant,	6,630
Williamstown Public Library,	2,163	Nahant Public Library,	6,630
Williamstown Branch Public Library,	466	NEWBURYPORT,	23,592
BRISTOL.		Newburyport Public Library,	23,592
Attleborough,	2,559	North Andover,	6,400
Attleborough Free Public Library,	2,559	North Andover Public Library,	6,400
Easton,	11,077	Peabody,	30,063
Ames Free Library,	11,077	Eben Dale Sutton Reference Library,	2,225
FALL RIVER,	29,150	Peabody Institute Library,	27,838
Fall River Public Library,	29,150	Rockport,	2,600
Mansfield,	1,412	Rockport Public Library,	2,600
Mansfield Public Library,	1,412	Swampscott,	4,633
NEW BEDFORD,	57,104	Swampscott Town Library,	4,633
New Bedford Free Public Library,	57,104	Topsfield,	2,563
Rehoboth,	625	Topsfield Town Library,	2,563
Blanding Library,	625	Wenham,	817
TAUNTON,	23,483	Wenham Free Public Library,	817
Taunton Public Library,	23,483		

The Free Public Libraries of Massachusetts in 1885 — Continued.

COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books	COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books
FRANKLIN.		HAMPSHIRE — Con.	
Bernardston,	4,466	Enfield,	1,784
Cushman Library,	4,466	Enfield Library Association,	1,784
Conway,	1,367	Hadley,	2,158
Conway Town Library,	1,367	Hadley Young Men's Library As- sociation,	1,793
Deerfield,	2,350	North Hadley Library Associa- tion,	365
Dickinson Public Library,	2,350	Hatfield,	3,000
Erving,	946	Hatfield Public Library,	3,000
Erving Town Library,	785	Middlefield,	500
Erving Town Branch Library,	161	Middlefield Public Library,	500
Gill,	745	NORTHAMPTON,	22,548
Gill Town Library,	745	Northampton Public Library,	20,888
Greenfield,	4,000	Florence Branch Public Library,	2,660
Greenfield Free Library,	4,000	Southampton,	2,108
Leyden,	260	Southampton Social Library,	2,108
Leyden Library,	260	Ware,	6,348
Montague,	2,629	Young Men's Library Association,	6,348
Montague Public Library,	2,629	Westhampton,	1,150
Northfield,	2,740	Westhampton Reunion Library,	1,150
Northfield Public Library,	2,740	Worthington,	300
Orange,	3,217	Worthington Library,	300
Free Public Library,	3,217		
Rowe,	900	MIDDLESEX.	
Rowe Town Library,	900	Arlington,	9,297
Shelburne,	6,000	Arlington Public Library,	9,297
Arms Library,	6,000	Ashby,	1,248
Sunderland,	2,030	Ashby Town Library,	1,248
Sunderland Public Library,	2,030	Ashland,	1,855
Warwick,	2,153	Ashland Public Library,	1,855
Warwick Free Library,	2,153	Ayer,	2,190
Whately,	905	Ayer Public Library,	2,190
Whately Town Library,	905	Bedford,	1,800
HAMPDEN.		Bedford Free Public Library,	1,800
Brimfield,	3,000	Belmont,	5,105
Brimfield Public Library,	3,000	Belmont Public Library,	5,105
Chicopee,	8,000	Billerica,	2,100
Chicopee Town Library,	8,000	Bennett Public Library,	2,100
HOLYOKE,	10,628	Burlington,	1,758
Holyoke Public Library,	10,628	Burlington Town Library,	1,758
Monson,	3,122	CAMBRIDGE,	18,205
Monson Free Library,	3,122	Cambridge Public Library,	18,205
Palmer,	3,145	Carlisle,	870
Young Men's Library Associa- tion,	3,145	Carlisle Free Public Library,	870
SPRINGFIELD,	57,700	Concord,	23,512
City Library Association,	57,700	Concord Free Public Library,	23,512
West Springfield,	3,445	Dunstable,	1,672
West Springfield Public Library,	3,445	Dunstable Free Library,	1,672
HAMPSHIRE.		Everett,	3,854
Amherst,	4,764	Everett Public Library,	3,854
Amherst Public Library,	3,640	Framingham,	11,689
North Amherst Public Library,	1,124	Framingham Town Library,	11,689
Chesterfield,	1,200	Groton,	4,000
Town Library,	1,200	Groton Public Library,	4,000
Cummington,	5,200	Holliston,	3,186
Bryant Free Library,	5,200	Holliston Public Library,	3,186
Easthampton,	7,285	Hudson,	3,439
Easthampton Public Library As- sociation,	7,285	Hudson Public Library,	3,439
		Lexington,	10,000
		Cary Library,	10,000

The Free Public Libraries of Massachusetts in 1885 — Continued.

COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books	COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books
MIDDLESEX — Con.		NORFOLK.	
Lincoln,	3,100	Braintree,	9,435
Lincoln Public Library,	3,100	Thayer Public Library,	9,435
LOWELL,	29,200	Brookline,	40,867
Lowell City Library,	29,200	Brookline Public Library,	40,867
MALDEN,	12,243	Canton,	4,826
Malden Public Library,	12,243	Canton Public Library,	4,826
Marlborough,	9,233	Cohasset,	3,657
Free Public Library,	9,233	Cohasset Free Public Library,	3,657
Maynard,	2,125	Dedham,	8,649
Maynard Free Public Library,	2,125	Dedham Public Library,	8,649
Medford,	9,948	Foxborough,	2,983
Medford Public Library,	9,948	Boyden Public Library,	2,983
Melrose,	6,612	Franklin,	4,018
Melrose Public Library,	6,612	Franklin Library Association,	4,018
Natick,	17,921	Holbrook,	4,245
Bacon Free Library,	3,900	Holbrook Public Library,	4,245
Morse Institute Library,	14,021	Hyde Park,	8,000
NEWTON,	22,484	Hyde Park Public Library,	8,000
Newton Free Library,	22,484	Medfield,	3,000
North Reading,	2,520	Medfield Public Library,	3,000
Flint Library,	2,520	Milton,	8,025
Pepperell,	5,183	Milton Public Library,	8,025
Pepperell Public Library,	5,183	Norfolk,	250
Reading,	4,500	Norfolk Public Library,	250
Reading Public Library,	4,500	Norwood,	3,500
Sherborn,	2,966	Norwood Public Library,	3,500
Sherborn Town Library,	2,966	Quincy,*	15,509
Shirley,	320	Thomas Crane Public Library,	15,509
Shirley Town Library,	320	Randolph,	12,000
SOMERVILLE,	12,280	Turner Public Library,	12,000
Somerville Public Library,	12,280	Sharon,	2,353
Stoneham,	6,726	Sharon Public Library,	2,353
Stoneham Free Public Library,	6,726	Stoughton,	4,000
Sudbury,	10,461	Stoughton Public Library,	4,000
Goodnow Library,	10,461	Walpole,	4,000
Tewksbury,	2,475	Walpole Public Library,	4,000
Tewksbury Public Library,	2,475	Wellesley,	5,442
Townsend,	1,650	Wellesley Free Library,	5,442
Townsend Public Library,	1,650	Weymouth,	8,640
Tyngsborough,	2,675	Tufts Library,	8,640
Tyngsborough Public Library,	2,675		
Wakefield,	8,965	PLYMOUTH.	
Beebe Town Library,	8,965	Abington,	5,323
WALTHAM,	12,978	Abington Public Library,	3,976
Waltham Public Library,	12,978	North Branch of Abington Public Library,	1,347
Watertown,	27,582	Bridgewater,	5,791
Watertown Free Public Library,	27,582	Bridgewater Public Library,	5,791
Wayland,	12,000	BROCKTON,	12,373
Wayland Free Public Library,	12,000	Brockton Public Library,	12,373
Westford,	5,110	East Bridgewater,	1,383
Westford Public Library,	5,110	East Bridgewater Public Library,	1,383
Weston,	6,380	Halifax,	1,525
Weston Town Library,	6,380	Holmes Public Library,	1,525
Wilmington,	1,331	Hingham,	5,400
Wilmington Public Library,	1,331	Hingham Public Library,	5,400
Winchester,	6,400	Marshfield,	437
Winchester Public Library,	6,400	East Marshfield Public Library,	437
Woburn,*	31,880	Mattapoisett,	1,100
Woburn Public Library,	31,880	Mattapoisett Free Public Library,	1,100

* Became a city in 1889.

The Free Public Libraries of Massachusetts in 1885—Continued.

COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books	COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books
PLYMOUTH—Con.		WORCESTER—Con.	
Middleborough,	4,000	Harvard,	3,324
Middleborough Public Library,	4,000	Harvard Public Library,	3,324
Plymouth,	5,000	Hubbardston,	4,650
Plymouth Public Library,	5,000	Hubbardston Free Public Library,	4,650
Rochester,	1,200	Lancaster,	24,571
Rochester Free Public Library,	1,200	Lancaster Town Library,	24,571
Rockland,	5,865	Leicester,	6,091
Rockland Public Library,	5,865	Leicester Public Library,	6,091
Scituate,	750	Leominster,	11,236
P. Y. O. C. Library,	750	Leominster Free Public Library,	11,236
South Abington,*	5,120	Lunenburg,	2,687
South Abington Public Library,	5,120	Lunenburg Town Library,	2,687
West Bridgewater,	2,759	Mendon,	2,608
West Bridgewater Public Library,	2,759	Taft Public Library,	2,608
SUFFOLK.		Milford,	6,700
Boston,	803,971	Milford Town Library,	6,700
Boston Public Library:	803,971	Millbury,	5,149
Central,	-	Millbury Town Library,	5,149
Brighton Branch,	-	New Braintree,	645
Charlestown Branch,	-	New Braintree Public Library,	645
Dorchester Branch,	-	Northborough,	6,363
East Boston Branch,	-	Northborough Free Library,	6,363
Jamaica Plain Branch,	-	Northbridge,	4,158
North End Branch,	-	Whitinsville Social Library,	4,158
Roxbury Branch, and Fellowes	-	North Brookfield,	3,396
Athenæum,	-	North Brookfield Free Public Li- brary,	3,396
South Boston Branch,	-	Oakham,	250
South End Branch,	-	Oakham Public Library,	250
CHELSEA,	9,901	Oxford,	3,000
Chelsea Public Library,	9,901	Oxford Free Public Library,	3,000
Revere,	1,714	Paxton,	1,171
Revere Public Library,	1,714	Paxton Free Public Library,	1,171
WORCESTER.		Petersham,	1,900
Ashburnham,	1,103	Petersham Free Library,	1,900
Ashburnham Public Library,	1,103	Phillipston,	4,332
Athol,	2,276	Phillipston Free Public Library,	4,332
Athol Free Public Library,	2,276	Princeton,	1,938
Auburn,	1,400	Princeton Public Library,	1,938
Auburn Free Public Library,	1,400	Royalston,	984
Barre,	2,795	Raymond Public Library,	984
Barre Town Library,	2,795	Rutland,	1,300
Bolton,	2,604	Rutland Free Public Library,	1,300
Bolton Public Library,	2,604	Shrewsbury,	2,000
Boylston,	2,220	Shrewsbury Free Public Library,	2,000
Boylston Public Library,	2,220	Southborough,	5,099
Brookfield,	8,444	Fay Library,	5,099
Merrick Public Library,	8,444	Southbridge,	11,604
Charlton,	868	Southbridge Public Library,	11,604
Charlton Free Public Library,	868	Spencer,	4,913
Clinton,	13,600	Spencer Free Public Library,	4,913
Bigelow Free Public Library,	13,600	Sterling,	2,500
Douglas,	1,018	Sterling Free Public Library,	2,500
Douglas Free Public Library,	1,018	Sturbridge,	2,291
FITCHBURG,	18,000	Sturbridge Public Library,	2,291
Fitchburg Public Library,	18,000	Sutton,	2,900
Gardner,	1,000	Sutton Free Library,	2,900
Gardner Public Library,	1,000	Templeton,	2,904
Grafton,	4,870	Boynton Free Public Library,	2,904
Grafton Free Public Library,	4,870	Upton,	2,325
		Upton Town Library,	2,325

* Name changed to Whitman in 1886.

The Free Public Libraries of Massachusetts in 1885 — Concluded.

COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books	COUNTIES, CITIES, TOWNS, AND NAMES OF LIBRARIES.	Total Number of Books
WORCESTER — Con.		WORCESTER — Con.	
Uxbridge,	4,156	West Brookfield,	5,817
Uxbridge Free Public Library, .	4,156	West Brookfield Public Library, .	5,817
Warren,	4,589	Westminster,	1,950
Warren Public Library,	4,589	Westminster Town Library, . . .	1,950
Westborough,	6,100	Winchendon,	3,400
Westborough Town Library, . .	6,100	Winchendon Public Library, . .	3,400
West Boylston,	2,500	WORCESTER,	69,687
West Boylston Public Library, .	2,500	Worcester Free Public Library, .	69,687

RECAPITULATION.

THE STATE, AND COUNTIES.	Number of Free Public Libraries	Total Number of Books
THE STATE.		
Barnstable,	248	2,388,881
Berkshire,	7	24,668
Bristol,	18	65,020
Dukes,	7	125,410
Dukes,	2	1,156
Essex,	28	288,109
Franklin,	16	34,708
Hampden,	7	89,040
Hampshire,	16	59,345
Middlesex,	48	383,028
Nantucket,	—	—
Norfolk,	20	153,399
Plymouth,	16	58,026
Suffolk,	12	815,586
Worcester,	51	291,386

We learn from the recapitulation that there were, in 1885, in Massachusetts, 248 free public libraries with 2,388,881 books, being an average to each library of about 9,633 volumes.

Of the whole number of cities and towns in 1885, there were 222, or 63.79 per cent, which had free public libraries, while 126, or 36.21 per cent, were not provided with them at that time. The only city that did not have a free public library in 1885 was Salem, but one has been established in that city since that date.

The above facts, on a county basis, are shown in the following table :

THE STATE, AND COUNTIES.	Whole Number of Cities and Towns in 1885	Number of Cities and Towns having Free Public Libraries	Number of Cities and Towns without Free Public Libraries
THE STATE.	348	222	126
Barnstable,	15	6	9
Berkshire,	32	12	20
Bristol,	19	7	12
Dukes,	6	2	4
Essex,	35	24	11
Franklin,	26	15	11
Hampden,	22	7	15
Hampshire,	23	13	10
Middlesex,	54	47	7
Nantucket,	1	—	1
Norfolk,	26	20	6
Plymouth,	27	15	12
Suffolk,	4	3	1
Worcester,	58	51	7

For purposes of information, we give a table which shows the number of cities and towns that were not provided with free public libraries in the year 1885, although the city of Salem is now supplied, as previously stated, and some of the towns may have established such libraries since that date.

Cities and Towns in Massachusetts not having Free Public Libraries in the Census Year 1885.

COUNTIES, CITIES, AND TOWNS.	COUNTIES, CITIES, AND TOWNS.	COUNTIES, CITIES, AND TOWNS.
BARNSTABLE.	BERKSHIRE — Con.	BRISTOL — Con.
Bourne.	Monterey.	Dighton.
Brewster.	Mount Washington.	Fairhaven.
Chatham.	New Ashford.	Freetown.
Dennis.	New Marlborough.	Norton.
Falmouth.	Otis.	Raynham.
Mashpee.	Peru.	Seekonk.
Sandwich.	Richmond.	Somerset.
Truro.	Sandisfield.	Swansea.
Wellfleet.	Sheffield.	Westport.
	Tyringham.	
BERKSHIRE.	Washington.	DUKES.
Alford.	West Stockbridge.	Chilmark.
Becket.	Windsor.	Edgartown.
Cheshire.		Gay Head.
Clarksburg.	BRISTOL.	Gosnold.
Egremont.	Acushnet.	ESSEX.
Florida.	Berkley.	Bradford.
Hancock.	Dartmouth.	Essex.

*Cities and Towns in Massachusetts not having Free Public Libraries in the
Census Year 1885 — Concluded.*

COUNTIES, CITIES, AND TOWNS.	COUNTIES, CITIES, AND TOWNS.	COUNTIES, CITIES, AND TOWNS.
<p>ESSEX — Con.</p> <p>Groveland.</p> <p>Hamilton.</p> <p>Lynnfield.</p> <p>Newbury.</p> <p>Rowley.</p> <p>SALEM.</p> <p>Salisbury.</p> <p>Saugus.</p> <p>West Newbury.</p> <p>FRANKLIN.</p> <p>Ashfield.</p> <p>Buckland.</p> <p>Charlemont.</p> <p>Colrain.</p> <p>Hawley.</p> <p>Heath.</p> <p>Leverett.</p> <p>Monroe.</p> <p>New Salem.</p> <p>Shutesbury.</p> <p>Wendell.</p> <p>HAMPDEN.</p> <p>Agawam.</p> <p>Blandford.</p> <p>Chester.</p> <p>Granville.</p> <p>Hampden.</p> <p>Holland.</p> <p>Longmeadow.</p>	<p>HAMPDEN — Con.</p> <p>Ludlow.</p> <p>Montgomery.</p> <p>Russell.</p> <p>Southwick.</p> <p>Tolland.</p> <p>Wales.</p> <p>Westfield.</p> <p>Wilbraham.</p> <p>HAMPSHIRE.</p> <p>Belchertown.</p> <p>Goshen.</p> <p>Granby.</p> <p>Greenwich.</p> <p>Huntington.</p> <p>Pelham.</p> <p>Plainfield.</p> <p>Prescott.</p> <p>South Hadley.</p> <p>Williamsburg.</p> <p>MIDDLESEX.</p> <p>Acton.</p> <p>Boxborough.</p> <p>Chelmsford.</p> <p>Dracut.</p> <p>Hopkinton.</p> <p>Littleton.</p> <p>Stow.</p> <p>NANTUCKET.</p> <p>Nantucket.</p>	<p>NORFOLK.</p> <p>Bellingham.</p> <p>Dover.</p> <p>Medway.</p> <p>Millis.</p> <p>Needham.</p> <p>Wrentham.</p> <p>PLYMOUTH.</p> <p>Carver.</p> <p>Duxbury.</p> <p>Hanover.</p> <p>Hanson.</p> <p>Hull.</p> <p>Kingston.</p> <p>Lakeville.</p> <p>Marion.</p> <p>Pembroke.</p> <p>Plympton.</p> <p>South Scituate.*</p> <p>Wareham.</p> <p>SUFFOLK.</p> <p>Winthrop.</p> <p>WORCESTER.</p> <p>Berlin.</p> <p>Blackstone.</p> <p>Dana.</p> <p>Dudley. /</p> <p>Hardwick.</p> <p>Holden.</p> <p>Webster.</p>

* Name changed to Norwell in 1888.

In order to show the extent to which the free public library is appreciated, we show in the next table the population ten years of age and over; the number of free public libraries in each city and town; the total number of books in free public libraries in each city and town; the total annual circulation; the proportions borne by the number of books in the libraries, and the number of books circulated yearly, to each 100 of the population ten years of age and over; and the percentage of circulation of supply.

**FREE PUBLIC LIBRARIES IN MASSACHUSETTS IN 1885. NUMBER OF
VOLUMES AND ANNUAL CIRCULATION.**

COUNTIES, CITIES, AND TOWNS.	Popula- tion (10 years of age and over)	Number of Free Public Li- braries	Total Number of Books	Total Circu- lation (Annual)	PROPORTIONS TO EACH 100 OF POPULA- TION 10 YEARS OF AGE AND OVER		Percent- ages of Circula- tion of Supply
					Books in Libraries	Books Circulated Yearly	
BARNSTABLE.	12,649	7	24,668	35,511	195	281	144.10
Barnstable, . . .	3,434	2	10,950	8,632	319	251	78.68
Eastham, . . .	551	1	652	1,300	118	236	200.00
Harwich, . . .	2,380	1	5,000	4,500	210	189	90.00
Orleans, . . .	1,036	1	1,621	4,148	156	400	256.41
Provincetown, . . .	3,631	1	3,346	12,771	92	352	382.61
Yarmouth, . . .	1,617	1	3,099	4,160	192	257	133.85
BERKSHIRE.	45,932	18	65,020	178,282	142	388	273.24
Adams, . . .	6,419	1	3,435	19,682	54	307	568.52
Dalton, . . .	1,675	2	1,950	10,000	116	597	514.66
Great Barrington, . . .	3,675	2	8,800	27,475	239	748	312.97
Hinsdale, . . .	1,298	1	4,035	4,568	311	352	113.18
Lanesborough, . . .	930	1	1,200	1,641	129	176	136.43
Lee, . . .	3,446	2	4,299	10,140	125	294	235.20
Lenox, . . .	1,660	1	6,502	4,000	392	241	61.48
North Adams, . . .	9,935	1	5,777	45,988	58	463	798.28
Pittsfield, . . .	11,600	1	18,000	40,000	155	345	222.58
Savoy, . . .	565	2	293	175	52	31	59.62
Stockbridge, . . .	1,722	1	6,100	9,869	354	522	147.46
Williamstown, . . .	3,007	3	4,629	5,624	154	187	121.43
BRISTOL.	108,732	7	125,410	279,077	115	257	223.48
Attleborough, . . .	10,443	1	2,559	*	25	*	*
Easton, . . .	3,174	1	11,077	17,063	349	538	154.15
FALL RIVER, . . .	44,278	1	29,150	107,926	66	244	369.70
Mansfield, . . .	2,434	1	1,412	17,938	58	737	1,270.09
NEW BEDFORD, . . .	27,549	1	57,104	72,650	207	264	127.54
Rehoboth, . . .	1,489	1	625	*	42	*	*
TAUNTON, . . .	19,365	1	23,483	63,500	121	328	271.07
DUKES.	1,934	2	1,156	3,999	60	207	345.00
Cottage City, . . .	581	1	1,097	3,999	189	688	364.02
Tisbury, . . .	1,353	1	59	*	4	*	*
ESSEX.	175,940	28	288,109	587,258	164	334	203.66
Amesbury, . . .	3,608	1	5,000	1,500	139	42	30.22
Andover, . . .	4,728	2	16,413	24,577	347	520	149.86
Beverly, . . .	7,703	1	10,017	22,000	130	286	220.00
Boxford, . . .	673	2	2,098	1,703	312	253	81.09
Danvers, . . .	5,950	1	11,503	17,426	193	293	151.81
Georgetown, . . .	1,913	1	6,400	15,112	335	790	235.82
GLOUCESTER, . . .	17,509	1	7,500	18,190	43	104	241.86
HAVERHILL, . . .	17,861	1	40,033	66,903	224	375	167.41
Ipswich, . . .	3,613	1	10,500	8,700	291	241	82.82
LAWRENCE, . . .	31,406	1	30,816	132,944	98	423	431.63
LYNN, . . .	37,950	1	38,660	89,359	102	235	230.39
Manchester, . . .	1,378	1	4,390	8,350	319	606	189.97
Marblehead, . . .	6,282	1	8,156	31,382	130	500	384.62
Merrimac, . . .	1,918	1	4,000	11,743	209	612	292.82
Methuen, . . .	3,628	2	11,925	12,000	329	331	100.61
Middleton, . . .	751	1	3,400	7,962	453	1,060	234.00
Nahant, . . .	514	1	6,630	9,222	1,290	1,794	139.07
NEWBURYPORT, . . .	11,368	1	23,592	36,000	208	317	152.40
North Andover, . . .	2,700	1	6,400	18,800	237	696	293.67
Peabody, . . .	7,502	2	30,063	27,100	401	361	90.02
Rockport, . . .	3,159	1	2,600	4,000	82	127	154.88
Swampscott, . . .	2,094	1	4,633	16,933	221	809	366.06
Topsfield, . . .	975	1	2,563	5,000	263	513	195.06
Wenham, . . .	757	1	817	352	108	46	42.59
FRANKLIN.	22,808	16	34,708	68,954	152	302	198.68
Bernardston, . . .	782	1	4,466	1,025	571	131	22.94
Conway, . . .	1,258	1	1,267	3,000	109	238	218.35
Deerfield, . . .	2,486	1	2,350	3,000	95	121	127.37
Erving, . . .	693	2	946	414	137	64	46.72

* Circulation not returned.

Free Public Libraries, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Popula- tion (10 years of age and over)	Number of Free Public Li- braries	Total Number of Books	Total Circula- tion (Annual)	PROPORTIONS TO EACH 100 OF POPULA- TION 10 YEARS OF AGE AND OVER		Percent- ages of Circula- tion of Supply
					Books in Libraries	Books Circulated Yearly	
FRANKLIN—Con.							
Gill,	728	1	745	1,061	102	146	143.14
Greenfield,	4,029	1	4,000	15,600	99	387	390.91
Leyden,	375	1	260	700	69	187	271.01
Montague,	4,252	1	2,629	3,979	62	94	151.61
Northfield,	1,471	1	2,740	4,349	186	296	159.14
Orange,	2,946	1	3,217	13,429	109	456	418.35
Rowe,	468	1	900	800	192	171	89.06
Shelburne,	1,358	1	6,000	10,000	442	736	166.52
Sunderland,	598	1	2,030	3,040	339	508	149.85
Warwick,	545	1	2,153	3,027	395	555	140.51
Whately,	819	1	905	5,500	111	672	605.41
HAMPDEN.							
Brimfield,	74,316	7	89,040	149,407	120	201	167.50
Chicopee,	939	1	3,000	2,000	319	213	66.77
Holyoke,	9,354	1	8,000	38,100	86	407	473.26
Monson,	21,801	1	10,628	19,479	49	89	181.63
Palmer,	3,214	1	3,122	12,677	97	394	406.19
Springfield,	4,705	1	3,145	7,267	67	154	229.85
West Springfield, . .	30,804	1	57,700	65,420	187	212	113.37
	3,499	1	3,445	4,464	98	128	130.61
HAMPSHIRE.							
Amherst,	29,680	16	59,345	151,644	200	511	255.50
Chesterfield,	3,609	2	4,761	19,528	132	541	409.85
Cummington,	580	1	1,200	520	207	90	43.48
Easthampton,	660	1	5,200	2,800	788	424	53.81
Enfield,	3,577	1	7,285	12,081	204	338	165.69
Hadley,	834	1	1,784	3,600	214	432	201.87
Hatfield,	1,420	2	2,158	2,100	152	148	97.37
Middlefield,	1,104	1	3,000	7,800	272	707	259.93
Northampton,	419	1	500	250	119	60	50.42
Southampton,	10,683	2	23,548	72,526	220	679	308.64
Ware,	853	1	2,108	1,500	247	176	71.26
Westhampton,	4,859	1	6,348	26,212	131	539	411.45
Worthington,	450	1	1,150	1,800	256	400	156.25
	632	1	300	927	47	147	312.77
MIDDLESEX.							
Arlington,	280,593	48	383,028	1,048,647	137	374	272.99
Ashby,	3,731	1	9,297	26,703	249	716	287.55
Ashland,	765	1	1,248	1,594	163	208	127.61
Ayer,	2,131	1	1,855	9,019	87	423	486.21
Bedford,	1,749	1	2,190	13,687	125	783	626.40
Belmont,	781	1	1,800	3,639	230	466	202.61
Billerica,	1,309	1	5,105	8,560	390	654	167.69
Burlington,	1,808	1	2,100	8,655	116	479	412.93
Cambridge,	492	1	1,758	900	357	193	51.26
Carlisle,	47,692	1	18,205	83,016	38	174	457.89
Concord,	424	1	870	1,006	205	237	115.61
Dunstable,	3,119	1	23,512	22,281	754	714	94.69
Everett,	372	1	1,672	1,880	449	505	112.47
Framingham,	4,749	1	3,854	20,626	81	434	535.80
Groton,	6,781	1	11,689	28,488	172	420	244.19
Holliston,	1,685	1	4,000	12,000	237	712	300.42
Hudson,	2,454	1	3,186	12,420	130	506	389.23
Lexington,	3,164	1	3,439	11,900	109	376	344.95
Lincoln,	2,344	1	10,000	29,000	427	1,237	289.70
Lowell,	730	1	3,100	2,340	425	321	75.53
Malden,	52,558	1	29,200	122,662	56	233	416.07
Marlborough,	13,515	1	12,243	44,955	91	333	365.93
Maynard,	8,682	1	9,233	42,047	106	484	456.60
Medford,	2,152	1	2,125	1,575	99	73	73.74
Melrose,	7,396	1	9,948	23,621	135	319	236.30
Natick,	5,006	1	6,612	29,447	132	588	445.45
Newton,	6,842	2	17,921	31,229	262	456	174.05
North Reading,	16,259	1	22,484	82,836	138	509	368.84
Pepperell,	716	1	2,520	7,637	352	1,067	303.13
Reading,	2,109	1	5,183	14,800	246	702	285.37
Sherborn,	3,002	1	4,500	8,000	150	266	177.33
Shirley,	1,213	1	2,966	6,130	245	505	206.12
Somerville,	1,000	1	320	1,200	32	120	375.00
	23,957	1	12,280	73,109	51	305	598.04

Free Public Libraries, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Popula- tion (10 years of age and over)	Number of Free Public Li- braries	Total Number of Books	Total Circula- tion (Annual)	PROPORTIONS TO EACH 100 OF POPULA- TION 10 YEARS OF AGE AND OVER		Percent- ages of Circula- tion of Supply
					Books in Libraries	Books Circulated Yearly	
MIDDLESEX — Con.							
Stoneham,	4,737	1	6,726	24,282	142	513	361.27
Sudbury,	968	1	10,461	13,500	1,081	1,395	129.05
Tewksbury,	1,958	1	2,475	4,996	126	255	202.33
Townsend,	1,558	1	1,650	6,169	106	396	373.55
Tyngsborough,	511	1	2,675	3,454	523	676	129.25
Wakefield,	4,923	1	8,965	30,666	182	623	342.31
WALTHAM,	12,085	1	12,978	42,470	107	351	328.04
Watertown,	5,055	1	27,582	29,279	546	579	106.04
Wayland,	1,541	1	12,000	9,883	779	641	82.28
Westford,	1,770	1	5,110	8,500	289	480	166.00
Weston,	1,184	1	6,380	8,042	539	679	125.97
Wilmington,	808	1	1,331	1,158	165	143	86.67
Winchester,	3,571	1	6,400	20,460	179	573	320.11
Woburn,*	9,237	1	31,880	58,826	345	637	184.64
NORFOLK.							
	74,629	20	153,399	411,786	206	552	267.96
Braintree,	3,359	1	9,435	17,027	281	507	180.43
Brookline,	7,513	1	40,867	47,608	544	634	116.54
Canton,	3,607	1	4,826	21,100	134	585	436.57
Cohasset,	1,824	1	3,657	10,611	200	582	291.00
Dedham,	5,409	1	8,649	21,300	160	394	246.25
Foxborough,	2,417	1	2,983	13,174	123	545	443.09
Franklin,	3,246	1	4,018	12,895	124	397	320.16
Holbrook,	1,854	1	4,245	13,249	229	715	312.23
Hyde Park,	6,670	1	8,000	30,000	120	450	375.00
Medfield,	1,409	1	3,000	9,734	213	691	324.41
Milton,	2,902	1	8,025	18,000	277	620	223.83
Norfolk,	652	1	250	1,946	38	298	784.21
Norwood,	2,382	1	3,500	22,000	150	943	628.67
Quincy,*	9,503	1	15,509	53,046	163	558	342.33
Randolph,	3,184	1	12,000	23,000	377	722	191.51
Sharon,	1,072	1	2,353	6,845	219	639	291.78
Stoughton,	4,231	1	4,000	2,800	95	66	69.47
Walpole,	1,995	1	4,000	19,701	201	988	491.54
Wellesley,	2,667	1	5,442	14,775	209	567	271.29
Weymouth,	8,843	1	8,640	52,975	98	599	611.22
PLYMOUTH.							
	53,881	16	58,026	215,734	108	400	370.37
Abington,	3,086	2	5,323	20,983	172	680	395.35
Bridgewater,	3,348	1	5,791	20,750	173	620	358.38
BROCKTON,	16,925	1	12,373	40,547	73	240	328.77
East Bridgewater,	2,373	1	1,383	5,560	58	234	403.45
Halifax,	430	1	1,525	2,394	355	557	156.90
Hingham,	3,688	1	5,400	10,380	146	281	192.47
Marshfield,	1,435	1	437	3,540	30	247	823.33
Mattapoisett,	1,053	1	1,100	5,040	104	479	460.58
Middleborough,	4,398	1	4,000	22,182	91	504	553.85
Plymouth,	5,973	1	5,000	25,000	84	419	498.81
Rochester,	854	1	1,200	1,500	141	176	124.82
Rockland,	3,940	1	5,865	25,130	149	633	428.19
Scituate,	1,963	1	750	4,056	38	207	544.74
South Abington,†	2,971	1	5,120	23,246	172	782	454.65
West Bridgewater,	1,444	1	2,759	5,426	191	376	196.86
SUFFOLK.							
	343,279	12	815,586	1,203,148	238	350	147.06
BOSTON,	319,463	10	803,971	1,131,798	252	354	140.48
CHELSEA,	20,926	1	9,901	62,233	47	297	611.91
Revere,	2,890	1	1,714	9,117	59	315	523.90
WORCESTER.							
	179,134	51	291,386	695,508	163	388	238.04
Ashburnham,	1,737	1	1,103	7,000	64	403	629.69
Athol,	3,963	1	2,276	11,500	57	290	508.77
Auburn,	995	1	1,400	1,558	141	157	111.35
Barre,	1,766	1	2,795	8,020	158	454	287.34
Bolton,	742	1	2,604	2,216	351	299	85.19
Boylston,	682	1	2,220	3,075	326	451	138.74
Brookfield,	2,138	1	8,444	16,762	346	683	198.84
Charlton,	1,513	1	868	2,237	57	118	259.65
Clinton,	7,122	1	13,600	37,739	191	530	277.49

* Became a city in 1889.

† Name changed to Whitman in 1886.

Free Public Libraries, etc. — Concluded.

COUNTIES, CITIES, AND TOWNS.	Popula- tion (10 years of age and over)	Number of Free Public Li- braries	Total Number of Books	Total Circula- tion (Annual)	PROPORTIONS TO EACH 100 OF POPULA- TION 10 YEARS OF AGE AND OVER		Percent- ages of Circula- tion of Supply
					Books in Libraries	Books (Circulated Yearly)	
WORCESTER—Con.							
Douglas,	1,701	1	1,018	4,767	60	280	466.67
FITCHBURG, . . .	12,364	1	18,000	37,837	146	306	209.59
Gardner,	5,805	1	1,000	991	17	17	100.00
Grafton,	3,651	1	4,870	8,199	133	225	169.17
Harvard,	1,044	1	3,324	3,937	318	377	118.55
Hubbardston, . .	1,112	1	4,650	6,000	418	540	129.19
Lancaster,	1,692	1	24,571	12,133	1,452	717	49.38
Leicester,	2,361	1	6,091	5,692	258	241	93.41
Leominster, . . .	4,387	1	11,236	23,846	256	544	212.50
Lunenburg, . . .	903	1	2,687	3,818	298	423	141.95
Mendon,	788	1	2,608	4,800	331	609	183.99
Milford,	7,788	1	6,700	33,000	86	424	493.02
Millbury,	3,620	1	5,149	9,726	142	269	189.44
New Braintree, . .	471	1	645	995	137	211	154.01
Northborough, . .	1,496	1	6,363	10,812	425	723	170.12
Northbridge, . . .	3,010	1	4,158	8,451	138	281	203.62
North Brookfield, .	3,392	1	3,396	23,229	100	685	685.00
Oakham,	604	1	250	75	41	12	29.27
Oxford,	1,950	1	3,000	6,648	154	341	221.43
Paxton,	461	1	1,171	1,767	254	383	150.79
Petersham,	875	1	1,900	4,079	217	466	214.75
Phillipston, . . .	435	1	4,332	4,724	996	1,086	109.04
Princeton,	877	1	1,938	3,450	221	393	177.83
Royalston,	987	1	984	2,527	100	256	256.00
Rutland,	772	1	1,300	1,889	168	245	145.83
Shrewsbury, . . .	1,212	1	2,000	8,840	165	729	441.82
Southborough, . .	1,741	1	5,099	6,829	293	392	133.79
Southbridge, . . .	5,026	1	11,604	21,088	231	420	181.82
Spencer,	6,033	1	4,913	18,828	81	312	385.19
Sterling,	1,141	1	2,500	6,030	219	528	241.10
Sturbridge,	1,606	1	2,291	6,299	143	392	274.13
Sutton,	2,400	1	2,900	2,724	121	114	94.21
Templeton,	2,154	1	2,904	11,856	135	550	407.41
Upton,	1,959	1	2,325	4,867	119	248	208.40
Uxbridge,	2,424	1	4,156	6,780	171	280	163.74
Warren,	3,164	1	4,589	14,128	145	447	308.23
Westborough, . . .	4,091	1	6,100	27,300	149	667	447.65
West Boylston, . .	2,314	1	2,500	8,000	108	346	320.37
West Brookfield, .	1,463	1	5,817	14,458	398	988	248.24
Westminster, . . .	1,276	1	1,950	5,000	153	392	256.21
Winchendon, . . .	3,154	1	3,400	12,500	108	396	366.67
WORCESTER, . . .	54,472	1	69,687	206,482	128	379	296.09

RECAPITULATION.

THE STATE, AND COUNTIES.	Popula- tion (10 years of age and over)	Number of Free Public Li- braries	Total Number of Books	Total Circula- tion (Annual)	PROPORTIONS TO EACH 100 OF POPULA- TION 10 YEARS OF AGE AND OVER		Percent- ages of Circula- tion of Supply
					Books in Libraries	Books (Circulated Yearly)	
THE STATE.	1,403,507	248	2,388,881	5,028,955	170	358	210.59
Barnstable,	12,649	7	24,668	35,511	195	281	144.10
Berkshire,	45,932	18	65,020	178,282	142	388	273.24
Bristol,	108,732	7	125,410	279,077	115	257	223.48
Dukes,	1,934	2	1,156	3,999	60	207	345.00
Essex,	175,940	28	288,109	587,258	164	334	203.66
Franklin,	22,808	16	34,708	68,954	152	302	198.68
Hampden,	74,316	7	89,040	149,407	120	201	167.50
Hampshire,	29,680	16	59,345	151,644	200	511	255.50
Middlesex,	280,593	48	383,028	1,048,647	137	374	272.99
Norfolk,	74,629	20	153,399	411,786	206	552	267.96
Plymouth,	53,881	16	58,026	215,734	108	400	370.37
Suffolk,	343,279	12	815,586	1,203,148	238	350	147.06
Worcester,	179,134	51	291,386	695,508	163	388	238.04

Considering the State recapitulation, we see that the 222 cities and towns with 248 free public libraries had, in 1885, a population 10 years of age and over numbering 1,403,507. The number of books was 2,388,881 and the annual circulation reached 5,028,955. To each 100 of the population 10 years of age and over there were 170 books, and the annual circulation was 358 volumes to each 100 of the population 10 years of age and over. The circulation amounted to 210.59 per cent of the supply, that is for each book in the libraries there was an annual circulation of 2.1059, or $2\frac{1}{10}$ volumes.

Of the 13 counties having free public libraries there were four in which the circulation was in excess of the number of volumes, but did not reach two volumes circulated to each volume in the libraries. In seven counties the circulation was in excess, but did not reach three volumes circulated to each volume in the libraries. In two counties the circulation was in excess, but did not reach four volumes circulated to each volume in the libraries.

The largest circulation was in the county of Plymouth, being 3.7037 volumes to one volume in the libraries.

The following table gives a classification showing the relation of volumes circulated to number of volumes in libraries, and the number of cities and towns belonging to each classification line.

CLASSIFICATION OF CIRCULATION.	Number of Cities and Towns
Less than one volume circulated to one volume in libraries,	30
1 but less than 2 volumes circulated to one volume in libraries,	67
2 but less than 3 volumes circulated to one volume in libraries,	45
3 but less than 4 volumes circulated to one volume in libraries,	33
4 but less than 5 volumes circulated to one volume in libraries,	25
5 but less than 6 volumes circulated to one volume in libraries,	8
6 but less than 7 volumes circulated to one volume in libraries,	7
7 but less than 8 volumes circulated to one volume in libraries,	2
8 but less than 9 volumes circulated to one volume in libraries,	1
12 but less than 13 volumes circulated to one volume in libraries,	1
Circulation not returned,	3
TOTAL,	222

The largest circulation as regards number of volumes is in the town of Mansfield, Bristol county, or 12.7069. The next

largest circulation is in Marshfield, Plymouth county, or 8.2333, and North Adams, Berkshire county, 7.9828. In three towns, Attleborough and Rehoboth in Bristol county, and Tisbury in Dukes county, the circulation was not returned.

To show the relation borne by the free public libraries to the libraries of all kinds in the State, we present a comparative statement.

KINDS OF LIBRARIES.	LIBRARIES		BOOKS		ANNUAL CIRCULATION	
	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages
Free public libraries,	248	10.46	2,388,881	40.65	5,028,955	53.83
All other kinds,	2,123	89.54	3,487,975	59.35	4,313,969	46.17
TOTALS,	2,371	100.00	5,876,856	100.00	9,342,924	100.00

The free public libraries form 10.46 per cent of all libraries, and have 40.65 per cent of all the books and 53.83 per cent of the total annual circulation. All other kinds of libraries represent 89.54 per cent of the total number of libraries, and have 59.35 per cent of all the books and 46.17 per cent of the total annual circulation.

The information relating to libraries and reading rooms, contained in Part 2, Volume I., of the Census of 1885, is very complete, and covers the following subjects :

LIBRARIES : Number and value of books, and circulation ; amount of endowment fund and income ; value and rental of buildings owned and hired ; name, year in which opened, means of support, and hours open daily and weekly.

READING ROOMS : Value of reading room fixtures, description of reading matter, and number of persons using reading rooms ; the number of reading rooms connected with libraries ; name, year in which opened, means of support, and hours open daily and weekly.

The libraries, as shown in the Census tables, are divided into two classes, secular and religious. The secular libraries include city public, town public, other public, association, private circulating, public school, private school, public and private school, college, scientific, artistic, law, medical, hospital, reference, and institution. The religious libraries include church, church and Sunday school, Sunday school, and association.

Four towns, namely, Washington in the county of Berkshire, Seekonk in the county of Bristol, Gosnold in the county of Dukes, and Millis, a new town in the county of Norfolk, made no return of either libraries or reading rooms.

From returns made by the libraries in the State, we have prepared a text table which gives the names of principal donors of library and reading room buildings, endowment funds, books, etc., the names of the libraries or reading rooms, and the counties, cities, and towns in which located.

Before presenting the table, however, we desire to call attention to some correspondence between the trustees of the Cambria Library at Johnstown, Pa., and Mr. Andrew Carnegie of Pittsburgh, in relation to free public libraries, which is not only of interest in connection with our subject, but is particularly suggestive as to the value of such institutions.

The building of the Cambria Library Association was erected upon land given to the association by the Cambria Iron Company. Previous to the flood, the library contained nearly 10,000 volumes. The library had an endowment fund of \$42,000 contributed wholly by the officers and directors of the Cambria Iron Company. The president of the board of managers says in a letter to Mr. Carnegie — “The library was absolutely public, without any exclusive privileges for any person or class of persons. Its rooms were free, and its books were free for use in the rooms to everybody. A small charge was made to persons taking out books, which did not more than cover the cost of rebinding. The literary exercises, lectures, and class instruction were all free.”

Mr. Andrew Carnegie has offered to rebuild the library building for the association, at his own expense, and the offer has been accepted. That gentleman, in a recent letter concerning public libraries, writes —

“The result of my own study of the question, What is the best gift which can be given to a community, is that a free library occupies the first place, provided the community will accept and maintain it as a public institution, as much a part of the city property as its public schools, and, indeed, an adjunct to these. It is, no doubt, possible that my own personal experience may have led me to value a free library beyond all other forms of beneficence. When I was a boy in Pittsburgh, Colonel Anderson, of Allegheny — a name I can never speak of without feelings of devotional gratitude — opened his little library of four hundred books to boys. Every

Saturday afternoon he was in attendance himself at his house to exchange books. No one but he who has felt it can know the intense longing with which the arrival of Saturday was awaited, that a new book might be had. My brother and Mr. Phipps, who have been my principal business partners through life, shared with me Colonel Anderson's precious generosity, and it was when revelling in these treasures that I resolved, if ever wealth came to me, that it should be used to establish free libraries, that other poor boys might receive opportunities similar to those for which we were indebted to that noble man."

Besides the donation to the town of Johnstown, Mr. Carnegie has built and presented to Allegheny City, Pa., a free library upon which he has expended over \$300,000. He has also offered to spend not less than \$1,000,000 for a central free library and branches in the city of Pittsburgh, Pa., provided that the city will maintain them. This offer has been accepted and the city will expend \$40,000 annually for their support. In addition to these benefactions, which reach the people directly in all lines of life, Mr. Carnegie has established free public libraries in Edinburgh, Scotland, and in Dunfermline, Scotland, his native town.

In Massachusetts there have been several notable examples of similar beneficence on the part of those who have been identified with the prosperity of the Commonwealth. Conspicuous among the buildings that have been erected are the Winn Library at Woburn, the gift of Charles Bowers Winn; the Ames Library at Easton, the gift of Frederick L. Ames; the Crane Library at Quincy, the gift of Thomas Crane; the Converse Memorial building at Malden, the gift of Elisha S. Converse; the Richard Sugden Library at Spencer, the gift of Richard Sugden; and the Memorial Library at Acton, the gift of William A. Wilde. Many other important donations have been made, as will appear from the table of donors which follows:

NAMES OF PRINCIPAL DONORS OF LIBRARY AND READING ROOM BUILDINGS, ENDOWMENT FUNDS, BOOKS, ETC.

[The abbreviation "R. R." indicates that a reading room is connected with the library.
"S. S." means Sunday school.]

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
BARNSTABLE.		
Barnstable, . . .	Sturgis Library, . . .	William Sturgis.
	Osterville Public Library (R. R.), . . .	W. L. Garrison and others.
Brewster, . . .	Ladies' Association Library, . . .	Joseph H. Nickerson.
Chatham, . . .	Orthodox Congregational S. S. Li- brary, . . .	Alpheus Hardy.
Dennis, . . .	Dennis Library Association, . . .	Dennis Sewing Circle.
	East Dennis Association Library, . . .	Nathaniel Myrick; Prince S. Crowell.
Eastham, . . .	Eastham Public Library, . . .	Augustus Dentor and others.
Falmouth, . . .	First Congregational Church Li- brary, . . .	Abner Hersey.
Harwich, . . .	Broadbrook's Free Library, . . .	Henry C. Brooks.
Orleans, . . .	Snow Library, . . .	David Snow.
Truro, . . .	Truro Library Association, . . .	H. A. Jennings.
Yarmouth, . . .	Yarmouth Library, . . .	Nathan Matthews; Isaac Thatcher; Azariah Eldredge.
	South Yarmouth Social Library, . . .	Nathan Crowell.
BERKSHIRE.		
Adams, . . .	St. Mark's Parish German Library, . . .	Emil Kipper.
Alford, . . .	Alford S. S. Library, . . .	Rev. J. Jay Dana.
Cheshire, . . .	Cheshire Library Association, . . .	E. D. Foster; J. C. Wolcott.
Dalton, . . .	Crane Library (R. R.), . . .	Zenas Crane, Jr.; W. M. Crane.
Florida, . . .	Florida Baptist S. S. Library, . . .	Nathan Drury.
Great Barrington, . . .	Great Barrington Free Library, . . .	Justin Dewey; F. H. Wright; F. A. Hosmer and others.
	Cone Library (R. R.), . . .	Henry D. Cone.
	St. James' Parish Library, . . .	Society of Willing Hands.
Hinsdale, . . .	Public Library Association, . . .	Mrs. M. P. Twining.
	Hinsdale Congregational S. S. Li- brary, . . .	N. Emmor.
Lanesborough, . . .	St. Luke's S. S. Library, . . .	Laban Laselle.
	Lanesborough Reading Room, . . .	C. J. Palmer.
Lee, . . .	Methodist Episcopal S. S. Library, . . .	Charles Leffingwell.
	Riverside Reading Room, . . .	Hurlbut Paper Co.; J. L. Karrick.
	South Lee Episcopal S. S. Library, . . .	Rev. Arthur Lawrence.
Lenox, . . .	Lenox Library, . . .	Mrs. A. E. Schermerhorn.
	Charles Sedgwick Reading Room, . . .	Mrs. A. E. Schermerhorn.
	Congregational S. S. Library, . . .	John E. Parsons.
Mount Washington, . . .	Mount Washington S. S. Library, . . .	Dr. Nahum Gale.
Pittsfield, . . .	Berkshire Athenæum Library (R. R.), . . .	Thomas Allen; Phineas Allen.
	Pontotuc S. S. Library, . . .	Pontotuc Manufacturing Co.
Savoy, . . .	Orren Perkins Library, . . .	Orren Perkins and family.
Stockbridge, . . .	Stockbridge Social Library (R. R.), . . .	Nathan Jackson; J. Z. Goodrich.
West Stockbridge, . . .	Methodist Episcopal S. S. Library, . . .	Mrs. D. W. Bishop.
Williamstown, . . .	Blackinton Library (R. R.), . . .	S. Blackinton Woollen Co.
	Williams College Library, . . .	Amos Lawrence and others.
BRISTOL.		
Attleborough, . . .	Attleborough Free Public Library, . . .	Messrs. Horton, Angell, Watson, and Newell.
	North Attleborough Baptist S. S. Library, . . .	Henry Rice.
Dartmouth, . . .	Allen's Neck First Day School S. S. Library, . . .	Ruth Smith and others.
Easton, . . .	Ames Free Library (R. R.), . . .	Oliver Ames, 2nd.
Fairhaven, . . .	Fairhaven Library Association (R. R.), . . .	Edward Delano; Franklin Delano; Warren Delano.
FALL RIVER, . . .	Bogle Street Christian S. S. Library, . . .	First Christian and First Baptist Churches.
	St. Mark's Episcopal S. S. Library, . . .	St. John's Church of Taunton.
Mansfield, . . .	Mansfield Public Library, . . .	John F. Comey.
NEW BEDFORD, . . .	New Bedford Free Public Library (R. R.), . . .	Sylvia Ann Howland; George How- land, Jr.; Charles W. Morgan; Oliver Crocker; James B. Congdon.
	Friends' Academy Library, . . .	Samuel Eham.
	Swain Free School Library, . . .	William W. Swain.
	First Baptist S. S. Library, . . .	William H. Vinal.
	Trinitarian Bible S. S. Teachers' Li- brary, . . .	I. H. Bartlett, Jr.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
BRISTOL—Con.		
Norton, . . .	Norton Magazine Club Library, Wheaton Seminary Library, Wheaton Seminary Library Reading Room,	George H. Talbot. The Wheaton family. Mrs. Wheaton.
Rehoboth, . . .	Blanding Library,	Amelia D. Bicknell.
Swansea, . . .	Christ's Church S. S. Library,	Rev. N. W. Monroe; William Pearse and wife.
	Swansea Public Library,	F. S. Stevens.
TAUNTON, . . .	Taunton Public Library,	Samuel B. King.
	Old Colony Historical Society Li- brary,	Michigan State Library.
	St. John's S. S. Library,	Rev. George D. Miles.
Westport, . . .	Good Shepherd S. S. Library,	Various churches.
DUKES.		
Chilmark, . . .	Quitseey Library,	Alice S. Blackwell.
Gay Head, . . .	Gay Head S. S. Library,	Rev. C. H. Kent; Rev. A. P. Shields.
Tisbury, . . .	West Tisbury Library,	Alice S. Blackwell.
ESSEX.		
Amesbury, . . .	Amesbury and Salisbury Public Li- brary,	Joshua Aubin.
	Friends' Library,	John G. Whittier; Methodist Epis- copal Sunday Schools of Salem, Mass., Citizens of New Hampshire, and others.
	Amesbury and Salisbury Mills Vil- lage Congregational S. S. Library, Bradlee Library, Andover Theological Seminary Li- brary,	J. B. Webster. J. P. Bradlee.
Andover, . . .		John and Peter Smith; John Dove; Moses Brown; John Norris; Henry Gray; Samuel Abbott; William Phillips; William Reed.
	Taylor Memorial Library, Memorial Hall Reading Room,	Mrs. Horace Fairbanks.
	St. Augustine's S. S. Library,	John Smith; John Byers.
	Andover West Parish S. S. Library, Second Baptist S. S. Library,	Rev. James O'Donnell.
Beverly, . . .	St. Mary's S. S. Library,	Peter Smith; Joseph Faulkner.
Boxford, . . .	Boxford First Parish Library,	Ladies' Sewing Circle. Rev. Thomas Shahan.
		Augustus E. Bacheider; George H. Palmer; Miss A. Palmer; Mrs. M. F. Dorman.
	West Boxford Public Library,	George E. Davis.
	Mary Ann Peabody S. S. Library,	Mary Ann Peabody.
Bradford, . . .	Haseltine S. S. Library of Ward Hill, Peabody Institute Library,	Mrs. Rebecca Haseltine; George Haseltine.
Danvers, . . .	Georgetown Peabody Library,	George Peabody.
Georgetown, . . .	Gloucester Lyceum and Sawyer Free Library,	George Peabody.
GLOUCESTER, . . .	Cape Ann Scientific and Literary Association Library,	Samuel E. Sawyer.
HAVERHILL, . . .	Haverhill Public Library (R. R.),	Marion Hovey.
	Centre Church S. S. Library,	E. J. M. Hale.
	East Haverhill Second Baptist S. S. Library,	Mrs. Eunice Sargent.
Ipswich, . . .	Free Public Library,	J. K. Chase.
	Manning School Library,	Augustine Heard.
LAWRENCE, . . .	Free Public Library (R. R.),	R. H. Manning.
	Riverside Congregational S. S. Li- brary,	Daniel A. White.
		William E. Wolcott; Lawrence St. Congregational Church.
LYNN, . . .	Lynn Free Public Library,	Sidney B. Pratt; Henry Newhall.
	Unitarian S. S. Library,	Amos P. Tapley.
	St. Stephen's Memorial Church S. S. Library,	E. R. Mudge.
	Warren Lyceum Reading Room,	Rev. D. Sherman, D.D. and others.
	Young Men's Christian Association Library,	E. H. Johnson.
Manchester, . . .	Manchester Public Library,	T. Jefferson Coolidge.
Marblehead, . . .	Abbott Public Library (R. R.),	Benjamin Abbot.
Merrimac, . . .	Merrimac Public Library,	William P. Sargent; Dr. James R. Nichols.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
ESSEX — Con.		
Methuen, . . .	Nevins' Memorial Library (R. R.), . . .	Eliza S. Nevins; David Nevins; Henry C. Nevins.
Middleton, . . .	Flint Public Library,	Charles L. Flint.
NEWBURYPORT, . . .	Newburyport Public Library, . . .	Josiah Little; M. H. Simpson; George Peabody; M. P. Sawyer; Sarah A. Greene; J. M. Brad- bury; J. A. Frothingham.
	Newburyport Public Library Read- ing Room,	William C. Todd.
North Andover, . . .	North Andover Public Library, . . .	Eben Sutton.
Peabody,	Eben Dale Sutton Reference Library, Peabody Institute Library (R. R.), . . American Hibernian Benevolent As- sociation Library (R. R.), St. John's Total Abstinence Society Library,	Mrs. Eliza Sutton. George Peabody.
SALEM,	Essex Institute Library,	Thomas Luby.
	Salem Athenæum Library (R. R.), . . Classical and High School Library, State Normal School Library, Peabody Academy of Science Li- brary,	Rev. J. J. Gray. Charles Davis; William B. Howes; Abby W. Ditmore; Caroline R. Derby; Robert Peele.
	Essex South District Medical Society Library,	Caroline Plummer.
	Plummer Farm School Library, Pastors of the First Church Library, North Church S. S. Library,	Henry K. Oliver. Prof. Alpheus Crosby.
Salisbury,	Amesbury and Salisbury Baptist S. S. Library,	George Peabody.
Saugus,	Saugus High School Library,	Edward A. Holyoke; Abel L. Pier- son, M.D.
Topsfield,	Topsfield Town Library,	Miss Caroline Plummer.
Wenham,	Wenham Free Public Library, . . .	Rev. John Prince.
West Newbury, . . .	Baptist S. S. Library,	Amos Choate.
FRANKLIN.		
Ashfield,	Ashfield Library Association, . . .	Thomas J. Clark.
Barnardston,	Cushman Library,	S. M. Felton; Mrs. Mary Munroe; C. H. Bond.
Conway,	Conway Town Library,	Sidney A. Merriam.
Deerfield,	Dickinson Public Library (R. R.), . .	Mrs. R. H. Waters; Mrs. Whitman.
	First Congregational S. S. Library, . .	Mrs. Eunice Chase.
Erving,	Erving Congregational S. S. Library, .	
Greenfield,	Greenfield Library Association, . . .	Alonzo Lilly; George W. Curtis; Charles E. Norton.
	Holy Trinity Church Library,	Henry W. Cushman.
Monroe,	Monroe S. S. Library,	Marshall Field; Mrs. R. Graves.
Northfield,	Unitarian Parish Library,	Mrs. Esther Dickinson.
	Northfield Seminary Library,	Mrs. Esther Dickinson.
Orange,	Free Public Library,	A. B. Foster.
Shelburne,	Arms Library,	William B. Washburn.
	Arms Ministers' Library,	Rev. W. A. Henneberry.
	Baptist S. S. Library (Shelburne Falls),	S. T. Field; H. E. Thayer.
Shutesbury,	Congregational S. S. Library,	Otis Oliver; Lydia Everett.
Sunderland,	Sunderland Public Library,	James Talcott.
Warwick,	Warwick Free Library,	Davis Goddard; R. E. Carpenter.
HAMPDEN.		
Brimfield,	Hitchcock School Library,	Ira Arms.
Chicopee,	St. Joseph's Parochial School Li- brary,	Mrs. Joanna Fairbanks.
Granville,	East Granville Congregational S. S. Library,	Susan Willis; Mr. Dunnels; Mr. Hamilton.
Hampden,	Lacowsic Circulating Library,	Graves Brothers.
Longmeadow,	Congregational S. S. Library,	Jefferson Bancroft.
	Longmeadow S. S. Library,	
Ludlow,	Library of the Ludlow Manufac- turing Company,	S. A. Hitchcock.
		St. Joseph's Parish.
		Mrs. R. S. Brown.
		L. B. Chapman.
		E. C. Ely.
		E. C. Ely.
		Ludlow Manufacturing Company.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
HAMPDEN—Con.		
Monson, . . .	Monson Free Library (R. R.), . . . Linophilian Library, . . . Flynt and Packard Library, . . .	Mrs. N. M. Lyon; Mrs. Carrie R. Dale. Rev. S. Colton. Rufus Flynt; Timothy Packard.
Southwick, . . .	Southwick Congregational S. S. Li- brary, . . .	Templeton S. S. Library. Ginery Twichell.
SPRINGFIELD,	Boston and Albany Railroad Library, Hampden County Law Library, State Street Methodist Episcopal S. S. Library, . . .	William G. Bates; E. B. Gillett.
Westfield, . . .	Westfield Athenæum Library (R. R.),	Joseph Bigelow. Hiram Harrison; Samuel Mather.
HAMPSHIRE.		
Amherst, . . .	North Amherst Public Library, . . . Amherst College Library (R. R.), . . .	Rufus Kellogg. Henry T. Morgan; Joel Giles.
Belchertown, . . .	Belchertown Congregational S. S. Library, . . .	Lyman Coleman. William T. Stetson.
Chesterfield, . . .	Town Library, . . .	William Cullen Bryant.
Cummington, . . .	Bryant Free Library, . . . Baptist S. S. Library, . . .	Shelburne Falls, Palmer, and North- ampton Sunday Schools.
Easthampton, . . .	Easthampton Public Library Asso- ciation, . . .	Mrs. Emily Williston. Miss Elizabeth Fobes.
Enfield, . . .	Enfield Library Association, . . .	John Clark.
NORTHAMPTON,	Northampton Public Library (R. R.), Florence Branch Public Library (R. R.), . . .	John Clark. Sophia Smith; Prof. M. S. Phelps.
Pelham, . . .	Smith College Reference Library, . . . Pelham Congregational S. S. Library, . . .	James M. Cowan.
Plainfield, . . .	North East S. S. Library, . . .	Edwards Church, Northampton.
South Hadley, . . .	Mount Holyoke Seminary Library, . . . South Hadley S. S. Library, . . .	Mrs. H. F. Durant. Mrs. Justus White.
Ware, . . .	Young Men's Library Association, . . .	William Hyde; Calvin Hitchcock; J. H. Grenville Gilbert.
Westhampton, . . .	Westhampton Reunion Library, . . .	Dorcas Clark.
Williamsburg, . . .	Williamsburg Library Association, . . .	E. C. Bodman; Luther James; Emily Williston.
Worthington, . . .	Worthington Library, . . . West Worthington Methodist Epis- copal S. S. Library, . . .	C. K. Brewster.
		Peru Congregational Sunday School; Horace Cole.
MIDDLESEX.		
Acton, . . .	West Acton Literary and Library Society, . . .	Enoch H. Hall.
Arlington, . . .	Arlington Public Library, . . .	Ebenezer Learned; Timothy Well- ington; Nathan Pratt.
Billerica, . . .	Cotting High School Library, . . .	Benjamin E. Cotting
	Bennett Public Library, . . .	Mrs. Eleanor Bennett; Mrs. William W. Warren; Mrs. George Holden.
Burlington, . . .	Bennett Public Library (R. R.), . . .	Mrs. Eleanor Bennett.
	Faulkner Reading Room, . . .	Faulkner Manufacturing Company.
CAMBRIDGE, . . .	Talbot Library Association (R. R.), Baptist S. S. Library, . . .	Talbot Mills.
	Burlington Town Library, . . .	Betsey Cowdrey; Cornelius Sweetser.
Cambridge, . . .	Cambridge Public Library, . . .	James Campbell.
	Riverside Press Employes Library, Cambridge High School Library, . . .	James Brown.
Carlisle, . . .	Harvard University Library, . . .	Houghton, Mifflin, & Co.
	Sacred Heart S. S. Library, . . .	Elbridge Smith.
Chelmsford, . . .	St. James' Episcopal S. S. Library, . . .	Christopher Gore and others.
	Carlisle Congregational S. S. Library, . . .	Rev. P. H. Callanan.
Concord, . . .	Chelmsford Social Library, . . .	Rev. Edward Abbott.
	Concord Free Public Library (R. R.), Warnerville S. S. Library, . . .	Mrs. Wheeler.
Dunstable, . . .	Warnerville S. S. Library, . . .	Joseph Warren.
	Dunstable Free Library, . . .	William Munroe.
Framingham, . . .	Framingham Town Library (R. R.), First Baptist S. S. Library, . . .	Ralph Warner.
	South Framingham Baptist S. S. Li- brary, . . .	John E. Kendall; Mr. Pierce.
Groton, . . .	Groton Public Library, . . .	Moses Edgell.
	Lawrence Academy Library, . . .	Mrs. S. Hills.
Holliston, . . .	Holliston Public Library, . . .	Samuel Hill.
Hopkinton, . . .	Methodist Episcopal S. S. Library, Young Men's Christian Association Library, . . .	Abbott Lawrence.
Hudson, . . .	Hudson Public Library, . . .	Amos Lawrence; James Lawrence.
		Heirs of Elias Ballard; Seth Thayer.
		Lee Clafin.
		Sally G. Smith; Abram Croke.
		Charles Hudson; Caroline Wood; S. F. Manson.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
MIDDLESEX-CON.		
Lexington, . . .	Cary Library,	Mrs. William H. Cary.
Lincoln, . . .	Lincoln Public Library,	Dr. George Russell; George G. Tarbell; Mrs. John Farrar.
LOWELL, . . .	Wentworth Library,	Tappan Wentworth; Mrs. Tappan Wentworth.
	Shattuck Street Universalist S. S. Library,	Mrs. I. Place.
	St. Patrick's S. S. Library,	Notre Dame Academy.
	French Protestant S. S. Library, . . .	Rev. T. G. A. Côté.
MALDEN, . . .	Boston Rubber Shoe Company Library,	Boston Rubber Shoe Company.
	Malden Public Library,	John Gardner; Elisha S. Converse *
	Faulkner Evangelical Union S. S. Library,	John B. Faulkner.
Marlborough, . .	Catholic Lyceum Association Library,	Rev. J. Delehanty.
	Parish Library of the Unitarian Society,	Mrs. S. R. Phelps; Henry Rice.
Maynard, . . .	Tola Lodge Library,	A. Maynard.
Medford, . . .	Medford Public Library (R. R.), . . .	Thatcher Magoun, Jr.
	Universalist Historical Society Library,	Thomas Crane.
Natick, . . .	Morse Institute Library (R. R.), . . .	Mary Ann Morse.
	Bacon Free Library (R. R.),	Oliver Bacon.
NEWTON, . . .	Newton Theological Institution Library,	Gardner Colby.
	Newton Centre Baptist S. S. Library, . .	Asa Trowbridge.
	Second Congregational S. S. Library (West Newton),	Mrs. M. A. Spencer.
North Reading, .	Flint Library,	Harriet N. Flint.
Reading, . . .	Reading Methodist Episcopal S. S. Library,	Rev. E. Davies; Rev. Daniel Steele;
		H. F. Parker.
Sherborn, . . .	Sherborn Town Library,	Agricultural Library Association.
Shirley, . . .	Shirley Town Library,	Village Library Association.
Stoneham, . . .	St. Patrick's S. S. Library,	Rev. D. J. O'Farrell.
Sudbury, . . .	Goodnow Library,	John Goodnow.
Tewksbury, . . .	Tewksbury Public Library,	J. C. Kittridge.
	Tewksbury Congregational S. S. Library,	Miss Lucy Hill; Dr. Lathrop; H. H. Learned.
Tyngsborough, . .	Evangelical S. S. Library,	Rev. F. S. Durant.
Wakefield, . . .	Wakefield Baptist S. S. Library, . . .	Cornelius Sweetser.
	Beebe Town Library,	Cyrus Wakefield.
Watertown, . . .	Dana Library,	Sarah C. Dana.
	St. Patrick's S. S. Library,	Rev. M. M. Green.
Wayland, . . .	Wayland Free Public Library,	James Draper; Maria Child.
	Evangelical Trinitarian S. S. Library, .	Rev. Levi Smith.
Westford, . . .	Village Club House Library (R. R.), . .	Allan Cameron.
Weston, . . .	Weston Town Library,	Charles Merriam; Isaac Fiske;
		Charles H. Fiske.
Winchester, . . .	Winchester Historical and Genealogical Society Library,	Abijah Thompson.
Woburn,† . . .	Woburn Public Library,	Charles Bowers Winn; T. Winn;
		J. B. Winn and others.
	Woburn Public Library Reading Room,	Charles Bowers Winn.
	Charitable Religious Library,	Dr. Benjamin Cutler.
NANTUCKET.		
Nantucket, . . .	Admiral Sir Isaac Coffin's School Library,	Isaac Coffin.
NORFOLK.		
Bellingham, . . .	Select Common School Library,	Commonwealth of Massachusetts.
Braintree, . . .	Thayer Public Library (R. R.),	Sylvanus Thayer.
Brookline, . . .	Brookline Public Library (R. R.), . . .	John L. Gardner; Martin L. Hall.
	St. Mary's S. S. Library,	Rev. L. J. Morris.
Dedham, . . .	Dedham Public Library (R. R.),	Charles Bullard; Danforth P. Wright; George E. Hatton; John Bullard.
	Dedham Historical Society Library, . . .	Hannah Shuttleworth.

* Since the Census year this library has received a library building, the gift of Elisha S. Converse. It has now a small endowment, also, and has been incorporated under the name of the "Converse Library."

† Became a city in 1889.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
NORFOLK — Con.		
Dover, . . .	Dover First Parish Library, . . .	Frederick Barden.
Foxborough, . . .	Boydén Public Library, . . .	Uriah W. Boyden; Erastus P. Carpenter; William Carpenter.
Franklin, . . .	Franklin Library Association, . . .	Dr. Oliver Dean.
Holbrook, . . .	Holbrook Public Library (R. R.), . . .	Elisha Niles Holbrook.
Hyde Park, . . .	Unitarian S. S. Library, . . .	Henry Faxon.
Medfield, . . .	Medfield Public Library, . . .	George Cheney; George Cummings.
	Medfield Baptist S. S. Library, . . .	Jacob R. Cushman.
Medway, . . .	West Medway Baptist S. S. Library, . . .	Lansing Millis.
	West Medway Congregational S. S. Library, . . .	
Needham, . . .	Needham Library Association, . . .	Mrs. Charlotte Slocum.
	Congregational S. S. Library, . . .	John B. Tolman; Rev. S. W. Bush.
Norfolk, . . .	Baptist S. S. Library, . . .	William Jones.
Quincy,* . . .	Thomas Crane Public Library, . . .	Miss Eliza Harding.
		Family of the late Thomas Crane;
		Charles F. Adams; Adams Literary Association.
	St. John's S. S. Library, . . .	Rev. T. J. Danahy.
Randolph, . . .	Turner Public Library (R. R.), . . .	Heirs of Royal Turner.
Sharon, . . .	Sharon Public Library, . . .	Russell Drake; E. D. Barbour.
	Everett S. S. Library (First Congregational Church), . . .	Otis Everett.
	North Sharon Union S. S. Library, . . .	Congregational S. S. of Norwood.
Stoughton, . . .	Stoughton Public Library, . . .	Lucius Clapp.
Wellesley, . . .	Wellesley Free Library (R. R.), . . .	Hollis H. Hunnewell.
	Wellesley College Library, . . .	Henry F. Durant; Prof. E. N. Horsford.
Weymouth, . . .	Tufts Library, . . .	Miss Susan Tufts; Quincy Tufts.
	Tufts Library Reading Room, . . .	Quincy Tufts.
	North Weymouth Congregational S. S. Library, . . .	Quincy Tufts.
PLYMOUTH.		
Abington, . . .	Abington Public Library, . . .	Samuel B. Dyer; Thomas J. Hunt.
	North Branch of Abington Public Library, . . .	E. P. Reed; M. N. Arnold.
	First Parish S. S. Library, . . .	William Pratt.
Bridgewater, . . .	State Normal School Library, . . .	George B. Emerson; United States Government.
BROCKTON, . . .	St. Patrick's Parochial Library, . . .	Rev. M. Doherty.
Duxbury, . . .	Pilgrim Congregational S. S. Library, . . .	Mrs. G. W. Wright.
Hanover, . . .	Assinippi Library, . . .	Elisha Jacobs
	West Hanover Library Association, . . .	West Hanover Library Aid Sewing Circle.
Hanson, . . .	Hanson Library Association, . . .	Elijah C. Thomas; Hanson Lyceum;
		Rachel C. Cushing.
Hingham, . . .	Hingham Public Library (R. R.), . . .	Albert Fearing.
Hull, . . .	Methodist Episcopal S. S. Library, . . .	Samuel H. Loring; Ladies' Sewing Society.
Kingston, . . .	First Parish Unitarian S. S. Library, . . .	Miss Caroline Moore.
Marion, . . .	Tabor Library, . . .	Elizabeth Tabor.
Middleborough, . . .	Pratt Free School Library, . . .	Enoch Pratt.
Rochester, . . .	Rochester Free Public Library, . . .	C. H. Leonard.
Scituate, . . .	P. Y. O. C. Library, . . .	Albert Childs; Quincy Library.
	Scituate Centre Pioneer Library, . . .	Rev. W. M. C. Wood.
South Scituate,† . . .	James Library, . . .	Josiah L. James; N. C. Nash; Mrs. Helen M. Rockwell.
	James S. S. Library, . . .	Josiah L. James.
West Bridgewater, . . .	West Bridgewater Public Library, . . .	Francis E. Howard.
Wareham, . . .	Tremont Union Chapel S. S. Library, . . .	Ladies' Union Aid Society.
SUFFOLK.		
BOSTON, . . .	Boston Public Library, . . .	Joshua Bates; Jonathan Phillips; Arthur Scholfield; Abbott Lawrence; Charlotte Harris; Henry L. Pierce; Mary P. Townsend; George Ticknor and others.†
	Roxbury Branch, and Fellowes Athenæum Library (R. R.), . . .	Caleb Fellowes.

* Became a city in 1889.

† Name changed to Norwell in 1883.

‡ In addition to the above named persons who represent the principal donors of library funds, the library has received many valuable gifts of books, among the more notable collections being the Barton, Bowditch, Franklin, Parker, and Ticknor libraries, the Hunt and Thayer collections, and the Tosti engravings, besides a very large number of smaller gifts of books and sums of money to be spent for books.

Names of Principal Donors, etc. — Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
SUFFOLK — Con.		
BOSTON — Con.	Boston Athenæum Library, . . .	W. B. Howes; N. Appleton; J. Bromfield; G. Bemis.
	Periodical Reading Room of Boston Athenæum Library, . . .	George Bemis.
	Bofin's Bower Reading Room, . . .	Fields & Osgood; T. O. H. P. Burnham.
	Boston Library Society, . . .	Wm. S. Rogers; Abigail Howard; Mary Townsend; Mr. Harris.*
	Boston Training School for Nurses Library, . . .	Dr. William L. Richardson.
	Boston Turnverein Library, . . .	A. J. Walther; F. B. Teuthorn.
	Massachusetts Horticultural Society Library, . . .	Josiah Stickney; Rev. John Lewis Russell.
	Massachusetts New Church Union Library (R. R.), . . .	Miss Eliza Jenkins.
	Comins School Library, . . .	Linus B. Comins.
	Dorchester High School Library, . . .	Edward Everett; William J. Rolfe and others.
	Gibson Fund Library of Tileston School, . . .	Christopher Gibson.
	Harris School Library, . . .	Christopher Gibson.
	Mather School Library, . . .	Christopher Gibson.
	Minot School Library, . . .	Christopher Gibson.
	Norcross School Library, . . .	Otis Norcross; Amos Lawrence.
	Phillips School Library, . . .	Otis Norcross.
	Stoughton School Library, . . .	Christopher Gibson.
	Tileston School Library, . . .	E. P. Tileston.
	North Bennet Street Industrial School Library (R. R.), . . .	William Endicott, Jr.
	Boston Society of Natural History Library, . . .	H. F. Wolcott.
	Jarvis Statistical Library, . . .	Dr. Edward Jarvis.
	The Proprietors of the Social Law Library (R. R.), . . .	Abbott Lawrence.
	Boston University School of Medicine Library, . . .	Dr. E. B. de Gersdorff; Dr. Russell; Massachusetts Homœopathic Medical Society.
	Treadwell Library of Massachusetts General Hospital, . . .	T. G. Treadwell.
	Circulating Library of St. Theresa's Church, . . .	Rev. J. J. McNulty.
	Ruggles Street Baptist Church Reading Room, . . .	D. S. Ford.
	Warren Street Chapel Adult Library, . . .	Rev. Charles F. Barnard.
	Appleton Street Chapel S. S. Library, . . .	Houghton, Mifflin, & Co.
	Brighton Congregational S. S. Library, . . .	James Holton.
	Bromfield Street Methodist Episcopal S. S. Library, . . .	Jacob Sleeper.
	Church of the Unity S. S. Library, . . .	Church of the Unity.
	First Parish S. S. Library (Brighton), . . .	J. Holton.
	Fourth Presbyterian Church S. S. Library, . . .	Members of the church.
	Mission Church S. S. Library, . . .	Rev. J. Henning.
	Reformed Episcopal S. S. Library, . . .	Edwin H. Sampson.
	St. Andrew's Church S. S. Library (Episcopal), . . .	Trinity Church.
	St. Francis de Sales S. S. Library, . . .	Dr. Edward Conway and Sunday School scholars.
	St. James' Episcopal S. S. Library, . . .	P. M. Pier.
	Warren Street Chapel Juvenile S. S. Library, . . .	Dr. H. I. Bowditch.
	Boston Young Men's Christian Association Library, . . .	Rev. Phillips Brooks; Rev. William Taylor; Francis Parkman; Henry Cabot Lodge; Prof. J. P. Cooke; H. A. Gorringe; Ginn, Heath, & Co.
	General Theological Library, . . .	Rev. Charles Burroughs, D. D.; Eben Dale; Mrs. A. E. P. Sever; Miss Rice and others.
	General Theological Library Reading Room, . . .	Mrs. A. E. P. Sever; Rev. Charles Burroughs, D. D.

* The original building was donated by the Tontine Association.

Names of Principal Donors, etc.—Continued.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
SUFFOLK—Con.		
BOSTON—Con.	Gilbert Library,	F. M. Ellis, D. D.
	New England Methodist Historical Society Library,	Jacob Sleeper.
	North End Mission Chapel Reading Room,	Rev. S. T. Frost.
	Shawmut Library Association,	Dr. E. B. Webb.
	Worlds Christian Mission Library (R. R.),	Rev. L. B. Bates.
CHELSEA,	Chelsea Public Library (R. R.),	Eustace C. Fitz.
	Central Congregational S. S. Library,	John H. Osgood; Stephen A. Love- joy; T. B. Frost.
Revere,	Chelsea Convent Library,	Rev. James McGlew.
	Revere Public Library,	Henry F. Cooledge.
	Tuckerman S. S. Library,	First Unitarian Society of Revere.
WORCESTER.		
Ashburnham,	Methodist Episcopal S. S. Library,	Miss Robbins; Charles Winchester.
Athol,	Athol Free Public Library,	William B. Spooner; Josiah M. Jones.
	Second Unitarian S. S. Library,	First Unitarian Parish of Waltham; West Church Sunday School of Boston.
Auburn,	Auburn Free Public Library,	William Craig; A. Bancroft; Mr. Rice; Mrs. K. Groen.
Barre,	Auburn S. S. Library,	William Craig; Mrs. Mary Emerson.
	Barre Town Public Library,	Samuel S. Gates.
	Lyon Gift Library,	Gardner Parker Lyon.
Blackstone,	Quickstream Lodge, I. O. G. T., Li- brary,	Mr. D. A. Cook.
	St. Paul's S. S. Library,	Rev. W. A. Power.
Boylston,	Boylston Public Library,	Boylston Social Library; Boylston Farmer's Club; Phineas Ball; John B. Gough; O. S. Kendall; Miss E. Williams.
	Boylston S. S. Library,	John B. Gough.
Brookfield,	Merrick Public Library (R. R.),	William A. Bannister; Pliny Merrick.
Clinton,	Bigelow Free Public Library,	Bigelow Library Association.
	Church of the Good Shepherd S. S. Library,	C. G. Stephens; Mrs. Eastburn; Mrs. Melcher.
Dana,	First Unitarian S. S. Library,	Gilman M. Palmer.
Dudley,	Congregational S. S. Library,	Miss F. A. Doane.
	Conant Library,	Hezekiah Conant.
FITCHBURG,	Nichols Academy Reading Room, { County Jail Library,	Moses Wood; Alvah Crocker.
	West Fitchburg Methodist Episcopal S. S. Library,	Fitchburg Methodist Episcopal Church.
Gardner,	Christian Doctrine Society Library, Gardner Public Library,	Rev. P. J. Garrigan.
	South Gardner Social Library Asso- ciation,	Heirs of Levi Heywood.
Grafton,	Grafton Free Public Library,	Abijah M. Severy.
	Grafton Free Public Library Read- ing Room,	Joseph Leland.
Hardwick,	Hardwick Free Library,	Otis Norcross.
Harvard,	Hardwick Free Library,	Calvin Paige; William B. Wesson; Timothy Paige; George Ropes.
Hubbardston,	Bromfield School Library,	Mrs. Margaret Bromfield Blanchard.
Lancaster,	Hubbardston Free Public Library,	Jonas G. Clark.
	Lancaster Town Library,	Nathaniel Thayer; Christopher T. Thayer; George Bancroft.
	Library of the State Industrial School for Girls,	Henry B. Rogers.
Leicester,	Leicester Public Library,	Waldo Flint; Emory Washburn; A. Firth; Mrs. Ellen Flint; H. E. Sargent.
	Leicester Academy Library,	Stephen Salisbury.
Leominster,	Leominster Public Library Reading Room,	J. W. Lines.
Lunenburg,	Lunenburg Town Library,	F. Caldwell.
Mendon,	Taft Public Library,	Mrs. Susan Huston.
Milford,	Thurber Medical Association Li- brary,	F. B. Claffin and others.
Northborough,	Northborough Free Library,	Isaac Davis.
Northbridge,	Whitinsville Social Library,	E. W. Fletcher estate.

Names of Principal Donors, etc. — Concluded.

COUNTIES, CITIES, AND TOWNS.	Name of Library or Reading Room	Names of Principal Donors
WORCESTER — <i>Con.</i>		
North Brookfield, .	North Brookfield Free Public Library (R. R.),	T. C. Bates; A. H. Batcheller; W. H. Montague; High School.
	Appleton Library,	Samuel Appleton.
Oakham,	Oakham S. S. Library,	John B. Gough.
Oxford,	Oxford Free Public Library,	Ira Barton.
	Oxford Congregational S. S. Library,	Miss Anna Childs; Alexander Do Witt.
Paxton,	Paxton Free Public Library,	Flint estate.
Petersham,	Petersham Free Library,	Thomas Brooks.
Phillipston,	Phillipston Free Public Library,	J. Phillips.
Princeton,	Princeton Public Library (R. R.),	Edward A. Goodnow.
Royalston,	Raymond Public Library,	Ladies' Benevolent Society; Joseph Raymond.
Rutland,	Second Advent S. S. Library,	Charles Covill.
Southborough,	Fay Library,	Francis B. Fay.
Southbridge,	Southbridge Public Library (R. R.),	Holmes Ammidown.
	Central Baptist S. S. Library,	John Edwards.
Sterling,	Sterling Free Public Library,	Miss Caroline Putnam, Miss Eliza A. Conant; J. T. Allen; Rev. George Putnam.
Sutton,	Sutton Free Library,	J. W. Stockwell; John D. McCrate; Mrs. Mary Pierce; Edward J. Mills; Dr. J. H. Armsby.
Templeton,	Boynton Free Public Library,	David Whitcomb.
Upton,	Upton Town Library,	William Knowlton; Dr. E. Carpenter.
Webster,	St. Joseph's Circulating Library,	Rev. James Quann.
	Universalist S. S. Library,	Mrs. Julia Clemons.
West Boylston,	West Boylston Public Library,	David Lee Child.
West Brookfield,	West Brookfield Public Library (R. R.),	Charles Merriam.
Winchendon,	Winchendon Public Library,	Ephraim Murdock, Jr.
WORCESTER,	Worcester Free Public Library,	Dr. John Green; Worcester Lyceum and Library Association.
	Free Public Library Reading Room, Lincoln Square Reading Room,	Fund.
	Worcester High School Library,	Rev. J. J. Miller; E. H. Chamberlain.
	Oread Institute Library (R. R.),	A. H. Bullock.
	Holy Cross College Library,	Eli Thayer.
		Rev. Messrs. McCarthy, Griffin, and McMahon.
	Library of Worcester Polytechnic Institute,	John Boynton.
	Worcester Natural History Society Library (R. R.),	Stephen Salisbury; Alexander Agassiz; U. S. Dept. of the Interior.
	Worcester City Hospital Medical Library,	Albert Curtis; Joseph Sargent, M.D.
	Worcester City Hospital Patients' Library,	Albert Curtis; Joseph Sargent, M.D.
	Worcester District Medical Library,	Daniel Walden; C. W. Wilder, M.D.; Harrison Bliss.
	Worcester Lunatic Hospital Library,	Miss Abigail Wheeler; Mrs. Sarah C. Lewis.
	Bangs Library (Second Congregational Church),	Edmund D. Bangs; Stephen Salisbury.
	All Souls' Universalist S. S. Library,	Ladies' Aid Society.

The donors mentioned in the preceding table are the principal ones, that is, those who have contributed the largest sums for library buildings, books, or for investment to provide for the support of the library or reading room. There were, of course, many other donors, and since 1885 important gifts have been made by donors other than those named, but, as our record closes in that year, the list could not be enlarged.

PROFIT SHARING.

Under this head we present the results of an inquiry regarding profit sharing, and also the results of an inquiry in relation to extra wages earned by employés. The inquiries were as follows :

1. Are any of the employés of this establishment, and how many, stockholders or profit sharers by virtue of co-operation or industrial partnership ?

2. Do the employés of this establishment have an opportunity to add to their regular yearly earnings by virtue of extra work, or premium (high grade) work ?

In the Bureau report for 1886, one of the subjects considered was "Profit Sharing." The term was there defined to be "any arrangement whereby labor is rewarded in addition to its wages, or, in lieu of wages, by participation in the profits of the business in which it is employed." The leading instances of profit sharing in Europe and the United States are mentioned, and, in some cases, quite lengthy historical sketches are given.

Three forms of profit sharing are considered: these are, profit sharing without wages, profit sharing in addition to wages (or industrial partnership), and profit sharing through stock-owning. As to the first form, profit sharing without wages, a full account is given of the operation of this plan in the Massachusetts fisheries. Respecting the second form, profit sharing in addition to wages, commonly called "industrial partnership," reference is made to the introduction and results of the plan in the following establishments: A. S. Cameron & Co., of New York city; Brewster & Co., of New York city; the Peace Dale Manufacturing Company of Peace Dale, R. I.; Lister Brothers, of Newark, N. J.; and the Pillsbury Flour Mills at Minneapolis, Minn.

By this review an opportunity is afforded to the Bureau, of which it gladly avails itself, to correct an error that was unintentionally made in the Part devoted to "Profit Sharing" in the report for 1886. It is there stated, on page 178, in speaking of the introduction of the system by the Peace Dale Manufacturing Company, — "Profit sharing was the suggestion of Rowland G. Hazard, the father of the present treasurer." The

paragraph, to be correct, should have read — “Profit sharing was the suggestion of Rowland Hazard, the present treasurer.” Rowland G. Hazard, the father of Rowland Hazard, retired from business in 1866, twelve years before profit sharing was introduced.

In 1872, Mr. Rowland Hazard went to England to purchase machinery. He had heard of the English co-operative societies, and he visited Rochdale in order to examine the methods of the “Pioneers.” Mr. Hazard became much interested and made a careful study of the system. Upon his return home he wrote a paper on the subject which was first read at a club in Providence, and afterwards delivered as a lecture at Peace Dale. This was in the winter of 1872, and it was the first suggestion of profit sharing at Peace Dale. Mr. Hazard advocated the plan until its adoption in 1877. It was put in practical operation in 1878. Rowland G. Hazard, 2d, the son of Rowland Hazard, and his brother, John N. Hazard, have always given their support to the plan.

The third form of participation, profit sharing through stock-owning, is that followed in certain co-operative manufacturing establishments in Massachusetts. From the summary given in the report we learn that there were ten co-operative manufacturing companies employing 186 male stockholders, and 26 female stockholders, or 212 in all who owned stock in the companies by which they were employed.

The first presentation derived from the results of the present investigation, based upon the replies to the first inquiry, shows, by cities and towns, the number of private firms, corporations, and total establishments, having stockholders or profit sharers in their employ. The table also gives the number of stockholders or profit sharers employed, respectively, by private firms and corporations, and by all establishments.

PROFIT SHARING: BY CITIES AND TOWNS.

COUNTIES, CITIES, AND TOWNS.	ESTABLISHMENTS			NUMBER OF STOCKHOLDERS OR PROFIT SHARERS		
	Private Firms	Corpo- rations	Total	Private Firms	Corpora- tions	Total
BARNSTABLE.	1	1	2	3	1	4
Provincetown,	1	-	1	3	-	3
Sandwich,	-	1	1	-	1	1
BERKSHIRE.	7	2	9	11	3	14
Clarksburg,	1	-	1	1	-	1
Great Barrington,	-	1	1	-	2	2
Hancock,	1	-	1	2	-	2
Hinsdale,	1	-	1	1	-	1
New Marlborough,	2	-	2	3	-	3
Otis,	2	-	2	4	-	4
Pittsfield,	-	1	1	-	1	1
BRISTOL.	6	28	34	10	133	143
Attleborough,	1	-	1	1	-	1
Easton,	1	-	1	1	-	1
Fairhaven,	-	1	1	-	4	4
FALL RIVER,	1	16	17	2	33	35
Freetown,	-	1	1	-	2	2
NEW BEDFORD,	2	4	6	5	15	20
Somerset,	-	1	1	-	27	27
TAUNTON,	1	5	6	1	52	53
ESSEX.	20	16	36	39	49	88
Amesbury,	-	1	1	-	4	4
Beverly,	1	-	1	2	-	2
Boxford,	1	-	1	2	-	2
Georgetown,	2	-	2	4	-	4
GLOUCESTER,	1	1	2	1	1	2
HAVERHILL,	2	-	2	7	-	7
Ipswich,	-	1	1	-	1	1
LAWRENCE,	3	4	7	6	10	16
LYNN,	3	1	4	5	6	11
Marblehead,	1	1	2	3	2	5
Merrimac,	-	1	1	-	3	3
Methuen,	1	-	1	1	-	1
Newbury,	1	-	1	2	-	2
NEWBURYPORT,	-	1	1	-	2	2
Peabody,	1	1	2	1	3	4
Rockport,	3	3	6	5	11	16
Saugus,	-	1	1	-	6	6
FRANKLIN.	2	1	3	5	9	14
Orange,	-	1	1	-	9	9
Shelburne,	2	-	2	5	-	5
HAMPDEN.	4	22	26	7	53	60
Agawam,	-	1	1	-	2	2
Blandford,	1	-	1	1	-	1
Chicopee,	-	2	2	-	1	1
HOLYOKE,	1	4	5	2	7	9

Profit Sharing: By Cities and Towns—Continued.

COUNTIES, CITIES, AND TOWNS.	ESTABLISHMENTS			NUMBER OF STOCKHOLDERS OR PROFIT SHARERS		
	Private Firms	Corporations	Total	Private Firms	Corporations	Total
HAMPDEN—Con.						
Ludlow,	-	1	1	-	4	4
Palmer,	-	1	1	-	2	2
Russell,	-	1	1	-	1	1
SPRINGFIELD,	2	8	10	4	23	27
Westfield,	-	2	2	-	7	7
West Springfield,	-	2	2	-	6	6
HAMPSHIRE.						
	5	2	7	11	6	17
Easthampton,	2	1	3	6	3	9
Middlefield,	1	-	1	1	-	1
NORTHAMPTON,	-	1	1	-	3	3
Prescott,	1	-	1	1	-	1
Worthington,	1	-	1	3	-	3
MIDDLESEX.						
	7	24	31	20	205	225
Acton,	-	1	1	-	3	3
CAMBRIDGE,	-	4	4	-	22	22
Concord,	-	1	1	-	2	2
Framingham,	1	1	2	1	1	2
Holliston,	1	1	2	7	1	8
LOWELL,	2	6	8	6	28	34
Marlborough,	-	1	1	-	2	2
SOMERVILLE,	-	1	1	-	3	3
Stonham,	-	4	4	-	100	100
Wakefield,	-	2	2	-	18	18
WALTHAM,	-	1	1	-	22	22
Wilmington,	-	1	1	-	3	3
Winchester,	1	-	1	2	-	2
WOBURN,	2	-	2	4	-	4
NORFOLK.						
	6	7	13	15	24	39
Canton,	1	-	1	2	-	2
Dedham,	-	1	1	-	1	1
Medfield,	1	-	1	1	-	1
Milton,	1	-	1	3	-	3
Needham,	1	1	2	2	1	3
QUINCY,	2	4	6	7	21	28
Wrentham,	-	1	1	-	1	1
PLYMOUTH.						
	2	6	8	5	26	31
Bridgewater,	-	2	2	-	5	5
BROCKTON,	1	-	1	2	-	2
Carver,	-	1	1	-	1	1
Kingston,	1	1	2	3	11	14
Plymouth,	-	1	1	-	8	8
Whitman,	-	1	1	-	1	1
SUFFOLK.						
	12	19	31	19	70	89
BOSTON,	11	19	30	18	70	88
CHELSEA,	1	-	1	1	-	1

Profit Sharing: By Cities and Towns — Concluded.

COUNTIES, CITIES, AND TOWNS.	ESTABLISHMENTS			NUMBER OF STOCKHOLDERS OR PROFIT SHARERS		
	Private Firms	Corpo- rations	Total	Private Firms	Corpora- tions	Total
WORCESTER.	11	11	22	14	55	69
Athol,	-	2	2	-	12	12
Clinton,	-	1	1	-	5	5
Dudley,	1	-	1	1	-	1
FITCHBURG,	1	2	3	2	8	10
Harvard,	1	-	1	-	-	-
Leominster,	1	-	1	1	-	1
Milford,	2	1	3	2	6	8
Southbridge,	1	1	2	2	4	6
Sterling,	1	-	1	2	-	2
Templeton,	-	1	1	-	12	12
Westborough,	1	-	1	1	-	1
WORCESTER,	2	3	5	3	8	11

RECAPITULATION.

THE STATE, AND COUNTIES.	ESTABLISHMENTS			NUMBER OF STOCKHOLDERS OR PROFIT SHARERS		
	Private Firms	Corpo- rations	Total	Private Firms	Corpora- tions	Total
THE STATE.	83	139	222	159	634	793
Barnstable,	1	1	2	3	1	4
Berkshire,	7	2	9	11	3	14
Bristol,	6	28	34	10	133	143
Essex,	20	16	36	39	49	88
Franklin,	2	1	3	5	9	14
Hampden,	4	22	26	7	53	60
Hampshire,	5	2	7	11	6	17
Middlesex,	7	24	31	20	205	225
Norfolk,	6	7	13	15	24	39
Plymouth,	2	6	8	5	26	31
Suffolk,	12	19	31	19	70	89
Worcester,	11	11	22	14	55	69

There are 22 cities and 70 towns represented in the preceding table out of the 25 cities and 326 towns in the State.

The private firms number 83, with 159 profit sharers; the corporations 139, with 634 profit sharers. The whole number of establishments was 222, and of profit sharers, 793.

The returns in 1886 were from ten co-operative manufacturing establishments only, and no proper comparison as to increase can be instituted with the results given in the table.

The next presentation shows by industries the same facts as were given in the city and town table.

PROFIT SHARING: BY INDUSTRIES.

INDUSTRIES.	ESTABLISHMENTS			NUMBER OF STOCKHOLDERS OR PROFIT SHARERS		
	Private Firms	Corporations	Total	Private Firms	Corporations	Total
Agricultural implements,	-	1	1	-	2	2
Arms and ammunition,	1	1	2	2	3	5
Artificial teeth and dental work,	2	-	2	3	-	3
Artisans' tools,	2	3	5	5	11	16
Boots and shoes,	7	7	14	18	115	133
Boxes (paper and wooden),	1	3	4	1	3	4
Brick, tiles, and sewer pipe,	-	1	1	-	1	1
Building,	1	-	1	2	-	2
Burial cases, caskets, coffins, etc.,	-	1	1	-	3	3
Buttons and dress trimmings,	1	1	2	4	3	7
Carpetings,	1	1	2	1	2	3
Carriages and wagons,	1	1	2	2	3	5
Clocks and watches,	-	1	1	-	22	22
Clothing,	4	3	7	5	10	15
Cooking, lighting, and heating apparatus,	-	2	2	-	28	28
Cordage and twine,	1	3	4	1	11	12
Cotton goods,	1	19	20	1	48	49
Cotton, woollen, and other textiles,	-	1	1	-	1	1
Drugs and medicines,	3	-	3	4	-	4
Electrical apparatus and appliances,	-	3	3	-	5	5
Emery and sand paper and cloth, etc.,	-	1	1	-	5	5
Flax, hemp, and jute goods,	-	1	1	-	4	4
Food preparations,	2	2	4	5	9	14
Furniture,	2	5	7	4	35	39
Gas and residual products,	-	1	1	-	2	2
Glass,	-	2	2	-	4	4
Glue, isinglass, and starch,	1	1	2	1	1	2
Hosiery and knit goods,	1	3	4	2	7	9
Leather,	6	1	7	10	3	13
Liquors and beverages (not spirituous),	-	1	1	-	1	1
Lumber,	5	-	5	8	-	8
Machines and machinery,	4	12	16	8	46	54
Metals and metallic goods,	8	15	23	18	86	104
Mixed textiles,	-	1	1	-	2	2
Musical instruments and materials,	1	4	5	2	28	30
Oils and illuminating fluids,	1	-	1	2	-	2
Paper and paper goods,	1	5	6	1	11	12
Printing, publishing, and bookbinding,	7	9	16	10	28	38
Print works, dye works, and bleacheries,	-	2	2	-	8	8
Rubber and elastic goods,	-	2	2	-	14	14
Scientific instruments and appliances,	-	1	1	-	4	4
Shipbuilding,	2	-	2	4	-	4
Stone,	6	9	15	19	35	54
Straw and palm leaf goods,	1	-	1	1	-	1
Tallow, candles, soap, and grease,	2	1	3	2	1	3
Tobacco, snuff, and cigars,	1	1	2	2	4	6
Toys and games (children's),	-	1	1	-	5	5
Whips, lashes, and stocks,	1	1	2	2	3	5
Wooden goods,	3	1	4	7	6	13
Woollen goods,	2	4	6	2	11	13
ALL INDUSTRIES,	83	139	222	159	634	793

Of the 83 manufacturing and mechanical industries in the Commonwealth, there are 50 in which employés are stockholders or profit sharers. The industries in which the largest numbers are found are Boots and Shoes, Cotton Goods, Machines and Machinery, Metals and Metallic Goods, and Stone.

The distribution of profit sharers is well shown in the industry table, but it is more fully brought out in the next presentation in which the classification is by branches of industry. The arrangement is alphabetical.

PROFIT SHARING: BY BRANCHES OF INDUSTRY.

CLASSIFICATION OF BRANCHES OF INDUSTRY.	Number of Establishments having Employés who are Profit Sharers	Number of Employés who are Profit Sharers
Agricultural implements,	1	2
Arms and ammunition,	1	3
Artisans' tools,	2	6
Banjo hoops and drum shells,	1	3
Blacksmithing,	3	5
Blankets,	2	3
Boat building,	1	1
Bobbins, spools, and shuttles,	1	3
Boot button fastenings,	1	2
Boots and shoes,	11	128
Box-toes,	1	2
Boxes,	3	3
Brass founding and finishing,	1	2
Brick,	1	1
Buttons,	2	5
Carpetings,	1	2
Carriage wheels,	1	3
Carriages and wagons,	1	2
Caskets, coffins, etc.,	1	3
Chairs,	2	14
Cigar boxes,	1	1
Cigars,	1	4
Collars and cuffs,	1	3
Confectionery,	1	2
Copper,	1	3
Cordage and twine,	2	9
Cotton bleaching and dyeing,	1	2
Cotton gins,	1	4
Cotton goods,	7	17
Cotton machinery,	2	10
Cotton, woollen, and other textiles,	1	1
Covered and ivory buttons,	1	3
Cutlery,	1	3

Profit Sharing: By Branches of Industry — Continued.

CLASSIFICATION OF BRANCHES OF INDUSTRY.	Number of Establishments having Employees who are Profit Sharers	
	Number of Establishments having Employees who are Profit Sharers	Number of Employees who are Profit Sharers
Decorative metals,	1	2
Dentistry,	2	9
Door hangers,	1	2
Drugs and medicines,	3	4
Electric lighting,	1	1
Electrical apparatus and appliances,	2	4
Emery and sand paper and cloth, etc.,	1	5
Files,	1	2
Firearms,	1	2
Flannels and yarns,	1	2
Frames, wall pockets, easels, etc.,	1	6
Furniture,	5	25
Gas and residual products,	1	2
Ginghams,	1	5
Glass,	2	4
Glazed paper and cardboard,	1	3
Glue,	1	1
Governors, water-wheel	1	3
Granite,	11	42
Grates, etc.,	1	1
Harnesses,	3	4
Hosiery,	2	3
Ice,	2	9
Iron and steel forgings,	1	2
Iron castings,	1	3
Isinglass,	1	1
Jellies and preserves,	1	3
Jewelry,	1	3
Jute and hemp goods,	1	4
Ladders,	1	1
Lawns, silesias, and fine cloth,	1	2
Leather,	1	1
Leather goods,	1	3
Light hardware,	1	1
Lines and cords (cotton, silk, etc.),	1	2
Looms,	1	2
Lumber,	2	4
Machinists' work,	1	1
Machinery and tools,	1	7
Machines and machinery,	2	11
Marble,	1	3
Marble and granite,	1	2
Meat choppers, etc.,	1	2
Metals and metallic goods,	3	6

Profit Sharing: By Branches of Industry — Continued.

CLASSIFICATION OF BRANCHES OF INDUSTRY.	Number of Establish- ments having Em- ployés who are Profit Sharers	Number of Employés who are Profit Sharers
Millinery,	1	1
Millwrighting,	1	2
Mineral water bottling,	1	1
Mixed textiles,	1	2
Morocco machines,	1	3
Nails, horse-shoe	1	5
Oil-clothing,	1	2
Oils,	1	2
Organs,	1	4
Organs and pianos,	1	15
Painting and glazing,	1	2
Paper and paper goods,	4	6
Pianos,	3	11
Plain and fancy hosiery,	1	5
Planing and moulding,	1	3
Print cloths,	5	12
Print works, dye works, and bleacheries,	1	6
Printing, publishing, and bookbinding,	16	38
Rag carpeting,	1	1
Rubber and elastic goods,	1	2
Rubber goods,	1	12
Saw mill,	2	2
Saws and knives,	1	7
Screws,	1	1
Seines,	1	1
Sheetings and shirtings,	1	*
Sheetings, shirtings, etc.,	1	6
Shipbuilding,	1	3
Snuff,	1	2
Soap,	2	2
Soles, taps, and stiffenings,	1	2
Spectacles and eyeglasses,	1	4
Spool cottons and ready-wound bobbins,	1	1
Stamps,	1	2
Steam valves and gauge clocks,	1	1
Stone,	1	5
Stone quarry,	1	2
Stove and machine castings,	1	11
Stoves,	1	44
Stoves and ranges,	1	27
Straw and palm leaf goods,	1	1
Suspenders, etc.,	1	3
Tacks,	2	5
Tailoring,	1	1
Tallow and soap,	1	1

* Number not stated.

Profit Sharing: By Branches of Industry — Concluded.

CLASSIFICATION OF BRANCHES OF INDUSTRY.	Number of Establishments having Employes who are Profit Sharers	Number of Employes who are Profit Sharers
Tanning and currying,	2	5
Tapes,	1	1
Tin and sheet iron ware,	1	3
Tinsmithing, etc.,	1	2
Toys and games,	1	5
Valves, etc.,	1	3
Warps and quilts,	1	2
Watches,	1	22
Whips,	2	5
Wide and fancy cotton goods,	1	3
Wood turning, etc.,	1	2
Wool hats,	2	5
Woollen and merino underwear,	1	1
Woollen goods,	3	8
Writing paper, etc.,	1	3
TOTALS,	222	793

Since these returns were made there have been many additions to the number of establishments, the proprietors of which have introduced the system of profit sharing. The Bourne Mills is a well-known instance. This mill has recently declared a semi-annual dividend of $3\frac{1}{3}$ per cent on wages earned during the six months, and it is said that the proprietors of several mills in Fall River are considering the expediency of introducing the system.

There were replies from 675 establishments to the second inquiry which related to the opportunities afforded workingmen to add to their regular yearly earnings by virtue of extra work, or premium (that is, high grade) work. The only opportunities possessed by workingmen to make extra money is the chance to make overtime, that is, to do extra work. In a few cases higher pay for extra work is spoken of in the returns, but in the majority of cases the day rate rules for night work. No limit is apparently placed on the piece workers. They are at liberty to work as much as they wish, for no matter how much money they earn the relative labor cost remains the same to the manufacturer. Considerable extra work is called for when repairs are made, and some of this work is done on Sundays and holidays.

In but two instances was mention made of prizes being given or premiums paid for high grade work. As the system of profit sharing includes the theory that the employé may enlarge the profits of his employer by increased care, diligence, and economy, if he is permitted to share in the financial gain, it seems strange that the practice of giving prizes or paying premiums for superior work should not be more universal. If this practice had been more generally introduced, and had been found to be successful, it might have served as a natural path from the wages system to that of profit sharing. Profit sharing is not only a reward for premium or high grade work, but it unites the interests of the workers more closely with those of the employers. It has in it the elements of success, for it involves the idea of gain to the employer commensurate with that of the workmen, and of general industrial prosperity. Any industrial change that promises to increase the rewards of both capital and labor, and which binds both employer and employé to work for a common end, must expand its field and influence.

The distribution of the replies to the inquiry, by counties, is shown in the following table :

Opportunities for Extra Work: By Counties.

THE STATE, AND COUNTIES.	Number of Establishments Reporting Opportunities for Extra Work, etc.	THE STATE, AND COUNTIES.	Number of Establishments Reporting Opportunities for Extra Work, etc.
THE STATE.	675	THE STATE—Con.	
Barnstable,	6	Hampshire,	23
Berkshire,	35	Middlesex,	76
Bristol,	44	Nantucket,	—
Dukes,	—	Norfolk,	38
Essex,	106	Plymouth,	33
Franklin,	5	Suffolk,	146
Hampden,	46	Worcester,	117

The number of establishments making return is very small compared with the whole number engaged in manufacturing and mechanical industries, but so many more manufacturers might have answered affirmatively that the results must be taken as indications and not as totals.

The distribution by industries follows :

Opportunities for Extra Work: By Industries.

INDUSTRIES.	Number of Establishments Reporting Opportunities for Extra Work, etc.	INDUSTRIES.	Number of Establishments Reporting Opportunities for Extra Work, etc.
Agricultural implements, . . .	2	Ink, mucilage, and paste, . . .	-
Arms and ammunition, . . .	1	Ivory, bone, shell, and horn goods, etc.,	3
Artificial teeth and dental work, .	1	Jewelry burnishing and lapidary work,	-
Artisans' tools,	6	Leather,	17
Awnings, tents, and decorations, .	-	Linen,	-
Boots and shoes,	63	Liquors and beverages (not spirituous),	3
Boxes (paper and wooden), . . .	6	Liquors: malt, distilled, and fermented,	-
Brick, tiles, and sewer pipe, . . .	6	Lumber,	6
Brooms, brushes, and mops, . . .	4	Machines and machinery, . . .	45
Building,	49	Metals and metallic goods, . . .	75
Burial cases, caskets, coffins, etc.,	4	Mixed textiles,	1
Buttons and dress trimmings, . . .	1	Models and patterns,	2
Carpetings,	-	Musical instruments and materials,	8
Carriages and wagons,	33	Oils and illuminating fluids, . . .	-
Cement, kaolin, lime, and plaster, .	-	Paints, colors, and crude chemicals,	2
Charcoal and kindlers,	-	Paper and paper goods,	22
Chemical preparations (compound- ed),	3	Perfumes, toilet articles, etc., . . .	-
Clocks and watches,	3	Photographs and photographic materials,	2
Clothing,	50	Polishes and dressing,	3
Concrete walks, paving, etc., . . .	1	Printing, publishing, and bookbinding,	45
Cooking, lighting, and heating apparatus,	4	Print works, dye works, and bleacheries,	10
Cordage and twine,	6	Railroad construction,	2
Corks, bungs, and taps,	-	Rubber and elastic goods,	4
Cotton goods,	25	Salt,	-
Cotton, woollen, and other textiles,	-	Scientific instruments and appliances,	2
Crayons, pencils, crucibles, etc., .	-	Shipbuilding,	6
Drugs and medicines,	3	Silk and silk goods,	1
Dyestuffs,	1	Sporting and athletic goods, . . .	2
Earthen, plaster, and stone ware, . .	2	Stone,	18
Electrical apparatus and appliances,	4	Straw and palm leaf goods, . . .	6
Electroplating,	2	Tallow, candles, soap, and grease, .	2
Emery and sand paper and cloth, etc.,	2	Tobacco, snuff, and cigars, . . .	5
Fancy articles,	-	Toys and games (children's), . . .	1
Fertilizers,	3	Trunks and valises,	-
Fine arts and taxidermy,	1	Whips, lashes, and stocks, . . .	1
Fireworks and matches,	3	Wooden goods,	10
Flax, hemp, and jute goods, . . .	1	Woollen goods,	26
Food preparations,	24	Worsted goods,	2
Furniture,	18		
Gas and residual products,	3		
Glass,	2		
Glue, isinglass, and starch, . . .	1		
Hair work (animal and human), . .	1		
Hose: rubber, linen, etc.,	-		
Hosiery and knit goods,	4		
		ALL INDUSTRIES,	675

There are 66 industries represented by the previous replies, while for 17 industries no return was made by the proprietors that any opportunities were furnished employés to make extra money by working extra time, or by doing premium, or high grade, work.

HIRE D DWELLINGS.

To obtain the information desired in relation to dwelling houses owned by employers and rented by them to their employés, the following inquiries were made :

1. How many dwelling houses are owned by the proprietors of this establishment, and occupied by its employés?
2. Number of such tenants?
3. Whole number of persons in the families of such tenants?

The number of manufacturers answering the first inquiry was 1,022, and they were the owners of 8,649 houses which were rented to and occupied by their employés.

Only 928 manufacturers answered the second inquiry in relation to the number of tenants. These 928 reported 14,096 tenants, or an average of 15 tenants to each proprietor.

A still smaller number of employers reported the whole number of persons in the families of their tenants. This number was 758, and the number of persons was 54,851.

If we apply the average of 15 tenants, as returned by 928 employers, to the 1,022 proprietors who stated that they rented houses to their employés, we obtain an estimated total of 15,330 tenants, or 1.77 tenants to each house. These figures would indicate an average of less than two families to each house.

It is impossible to state what proportion of the tenants were males and females, but it is probable that the 15,330 tenants were nearly all male heads of families. If we assume that all were of this class, then they represent 5.81 per cent of the 263,824 males employed in manufacturing and mechanical industries at the time the manufacturers made their replies to the inquiries under consideration; indicating upon this basis that about six per cent of the males employed in manufactures live in houses hired by them from their employers.

Applying to the 1,022 returns the average derived from the replies of the 758 employers who reported a total of 54,851 persons occupying such houses, we have, as an estimated total, 73,953 persons residing in houses hired from employ-

ers. Comparing this figure with the total population of the State, 1,942,141, it would appear that 3.81 per cent of the population of the Commonwealth live in houses which are owned by manufacturers.

RENT AND BOARD.

The inquiries were as follows :

1. Average amount charged for the yearly rent of a 2 roomed tenement?
2. Average amount charged for the yearly rent of a 3 roomed tenement?
3. Average amount charged for the yearly rent of a 4 roomed tenement?
4. Average amount charged by the week for board in corporation boarding-houses, specifying the respective prices for males and females?

The rents presented in succeeding tables are the amounts paid by tenants who hire tenements from their employers, and the board quotations are the prices asked by corporations of their employés.

As regards rents, there are naturally wide variations, for some of the houses are located in large cities and some in small cities, while others are in either large or small towns.

The first table shows the average amounts charged for the yearly rent of a tenement of 2 rooms.

Average Amounts Charged for the Yearly Rent of a Tenement of 2 Rooms.

CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents	CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents
\$12.00	3	\$40.00	2
16.00	1	42.00	2
17.00	1	44.00	1
18.00	5	45.24	1
19.00	1	48.00	7
19.80	1	50.00	3
20.00	7	54.00	1
24.00	8	60.00	4
24.72	1	63.00	1
25.00	7	66.96	1
26.00	1	72.00	2
26.40	1	74.00	1
26.50	1	75.00	1
27.60	1	90.00	1
30.00	12	100.00	3
35.00	2	120.00	1
36.00	12	150.00	2
38.00	1	TOTAL	100

The average yearly rent for a tenement was \$40.02 per year, being based upon returns from 100 employers. It will be noticed in 66 instances out of 100 that the rent was below the general average. The lowest rent was \$12 per year and the highest \$150.

The second table gives the average amounts charged for the yearly rent of a tenement of 3 rooms.

Average Amounts Charged for the Yearly Rent of a Tenement of 3 Rooms.

CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents	CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents
\$15.00	1	\$50.00	5
20.00	2	54.00	3
24.00	9	54.24	1
25.00	5	57.00	2
25.10	1	60.00	14
26.00	1	64.00	1
27.00	2	65.00	1
29.00	1	66.00	3
30.00	17	70.00	1
31.20	1	72.00	10
31.50	2	75.00	6
32.50	1	78.00	3
33.00	5	84.00	2
33.60	1	90.00	2
34.00	1	91.00	1
34.50	1	93.00	1
36.00	33	96.00	6
37.08	1	100.00	3
38.75	1	104.00	1
39.00	1	120.00	1
39.80	1	125.00	3
40.00	6	150.00	1
42.00	6	200.00	1
45.00	3	240.00	1
48.00	20	TOTAL,	196

Returns were made by 196 employers. The average yearly rent for a tenement was \$51.95. In 128 cases out of 196 the rent ran below the general average. The range was from \$15 to \$240.

The third table shows the average amounts charged for the yearly rent of a tenement of 4 rooms.

Average Amounts Charged for the Yearly Rent of a Tenement of 4 Rooms.

CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents	CLASSIFICATION OF YEARLY RENTS.	Number of Establishments Charging Specified Rents
\$20.00	2	\$66.04	1
24.00	3	67.00	1
25.00	3	67.50	1
26.00	1	68.00	1
27.00	1	70.00	6
27.50	1	72.00	52
30.00	13	75.00	35
31.00	1	76.00	3
31.50	1	78.00	6
32.50	1	80.00	7
34.00	1	81.00	1
35.00	2	84.00	36
36.00	26	85.00	2
37.50	2	85.80	1
38.00	2	87.00	3
38.40	1	90.00	13
39.00	5	93.00	1
40.00	20	95.95	1
41.63	1	96.00	49
42.00	10	99.00	1
43.80	2	100.00	26
44.25	1	102.00	2
45.00	7	105.00	1
45.40	1	108.00	20
46.00	1	109.68	1
48.00	60	112.00	2
49.44	1	120.00	33
50.00	37	123.00	1
50.04	1	125.00	2
50.76	1	126.00	3
51.00	2	127.00	1
51.50	1	130.00	1
52.00	13	131.00	1
53.30	1	132.00	2
54.00	15	134.00	1
54.08	1	144.00	12
54.16	1	150.00	11
54.50	1	153.60	1
54.60	1	156.00	1
55.00	8	163.20	1
55.25	1	168.00	3
55.80	1	175.00	2
57.20	1	180.00	5
58.75	1	190.00	1
60.00	95	192.00	1
61.00	1	200.00	1
62.50	1	216.00	1
63.00	4	250.00	1
65.00	5	300.00	1
66.00	6	TOTAL,	729

Replies were received from 729 manufacturers. The rents ranged from \$20 to \$300, the average for all being \$74.32 per annum. In 431 instances the rent ran below the general average.

The fourth table shows the average amounts charged males, by the week, for board in corporation boarding-houses.

Average Amounts Charged by the Week for Board in Corporation Boarding-Houses. MALES.

CLASSIFICATION OF WEEKLY RATES.	Number of Establishments Charging Specified Rates	CLASSIFICATION OF WEEKLY RATES.	Number of Establishments Charging Specified Rates
\$2.00	1	\$3.35	1
2.25	1	3.50	73
2.30	1	3.75	14
2.50	3	3.85	1
2.75	11	4.00	59
2.90	1	4.25	5
3.00	39	4.50	24
3.05	1	4.75	1
3.12	1	5.00	14
3.15	3	5.50	1
3.22	1		
3.25	18	TOTAL,	274

There were 274 employers who furnished rates. The lowest price was \$2 and the highest \$5.50. The general average was \$3.66 per week. In 155 cases out of 274 the rate was below the general average.

In the Report for 1890, in the Part relating to wages and prices in Massachusetts in 1880 and 1885, much fuller statistics of rents and price of board will appear than are given in this Part. In connection with these new figures will also be given statistics of rents and price of board in other States of the Union. These figures will allow of comparisons being made between the rates in Massachusetts and those of the other States included in the presentation. As the rates for the other States cover the period from 1850 to 1880, or thirty years, there will be an opportunity furnished to note the increase or decrease in rents and price of board during the period considered.

The fifth and final table gives the average amount charged females, by the week, for board in corporation boarding-houses.

Average Amounts Charged by the Week for Board in Corporation Boarding-Houses. FEMALES.

CLASSIFICATION OF WEEKLY RATES.	Number of Establishments Charging Specified Rates	CLASSIFICATION OF WEEKLY RATES.	Number of Establishments Charging Specified Rates
\$1.50	1	\$2.37	1
1.75	6	2.50	55
1.85	1	2.75	21
2.00	9	2.80	2
2.10	1	3.00	51
2.15	1	3.25	5
2.20	1	3.50	13
2.25	13	3.75	1
2.30	3	4.00	6
2.35	3	TOTAL,	194

Quotations were supplied by 194 manufacturers. The highest weekly charge was \$4 and the lowest \$1.50. The general average for all was \$2.72 per week. There were 95 instances out of the 194 where the price was less than the general average.

DWELLINGS OWNED BY EMPLOYÉS.

The information contained in this division does not relate to all dwellings owned by employés, but only to those purchased from their employers. This limitation is shown by the inquiries, which were as follows :

1. How many dwelling houses have the proprietors of this establishment sold to their employés, and received full payment therefor ?
2. How many are being paid for now ?
3. Total mortgages on same, and average rate of interest ?

In response to the first inquiry, 39 employers report that they have sold 117 houses to their employés and received full payment therefor. Of the 39 employers, 18 sold one house each ; 6 sold two houses each ; 3 sold three houses each ; 4 sold four houses each ; 4 sold six houses each ; one sold eight houses ; and 3 sold ten houses each. One states that he sold house-lots.

There are 44 employers who have sold 88 houses that are being paid for now. Of these 44 employers, 20 have sold one house each ; 14 have sold two houses each ; 5 have sold three

houses each; 2 have sold four houses each; 2 have sold five houses each; and one has sold seven houses to employés who are paying for them now.

As regards mortgages, 32 employers report \$46,826 in mortgages still remaining upon the houses not yet paid for, the rate of interest being six per cent per annum; 4 employers report \$5,000 in mortgages, the rate being five per cent per annum; 8 employers did not return the amount of mortgages or the rates of interest on the same.

In connection with this subject, the statistics of co-operative banks are most interesting. In their Report for 1890 the Savings Bank Commissioners say, referring to co-operative banks, — “These are institutions of great value, affording assistance and educating the people, in many cases, to save, and build for themselves homes which would not be accomplished in any other way.”

The following table shows the number of co-operative banks, the number of shares in force, the number of members, and the total assets from 1884 to 1889.

Co-operative Banks.

YEARS.	Number of Banks	Number of Shares in Force	Number of Members	Total Assets
1884,	26	68,133	10,294	\$1,971,923.20
1885,	30	78,565	11,836	2,512,335.86
1886,	40	98,783	14,805	3,229,072.20
1887,	51	134,864	20,735	4,211,948.86
1888,	66	184,598	27,943	5,505,112.17
1889,	93	248,263	37,289	7,106,751.77

A careful estimate, prepared by Messrs. Michael J. Brown and Joseph J. Paist under direction of Prof. Albert S. Bolles, chief of the Bureau of Industrial Statistics of Pennsylvania, and published as a part of the annual report of the secretary of internal affairs of Pennsylvania for 1888, gives the following figures of the building societies in Pennsylvania:

Number of societies,	1,000
Shares,	1,362,500
Members,	218,000
Borrowers,	68,000
Borrowed shares,	374,000

Assets,	\$84,121,270.00
Receipts for one year,	\$34,830,983.50
Disbursements for one year,	\$32,907,482.55
Cash on hand,	\$1,926,438.93
Withdrawals and matured shares,	\$10,263,997.41
Expenses,	\$343,990.00
Gains,	\$17,628,050.00

This estimate was based on the records of 337 associations, of which accurate and complete statistics were attained.

Mr. Joseph I. Doran of Philadelphia, the compilers state, at the expense of much time collected information from the city records on the amount of good building societies have done in Philadelphia. He ascertained that from 1849 to January, 1876, the building-society mortgages recorded were 36,129, averaging two thousand dollars each, showing that through this agency at least thirty thousand houses had been erected or purchased. He further stated that since 1870 to January, 1876, 31,479 dwellings had been built in Philadelphia, and during that period 20,535 building-society mortgages had been recorded. It is quite probable that forty thousand mortgages have been created from building-society loans since 1876 to the present day.

According to the yearly estimate for disbursements for one thousand societies in Pennsylvania—namely, \$32,907,482—it will be seen that these building societies disburse every twelve years, in Pennsylvania alone, \$384,889,784.

So far as general conclusions may be indicated by this Part, it appears that relief fund associations are not numerous, and the funds are small in amount. The employer's liability law, however, furnishes relief in extreme cases, and private and public beneficence supplements the operation of the law.

Comparatively few libraries or reading rooms have been established by manufacturers for the use of their employes, nor have many furnished opportunities for exercise or amusement, but the number of free public libraries and the long list of donors, show that this form of education is not neglected. The social opportunities of the workingmen are greater than ever before and are being extended yearly.

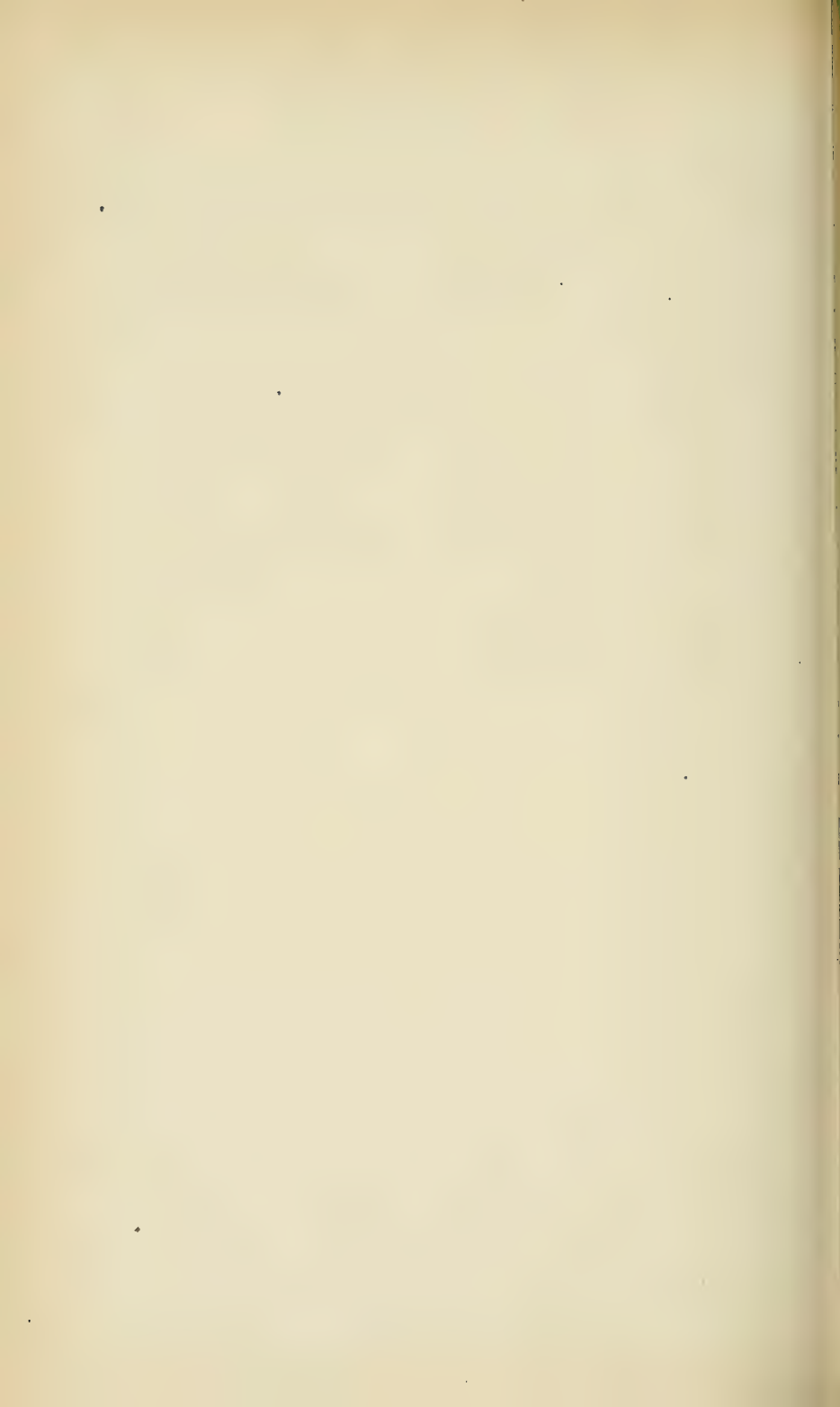
An extension of the system of profit sharing is evident, but

the figures are not as complete as a special investigation would show. Its advance during the year 1890 will be shown in the Bureau report for 1891.

The statistics of dwellings hired from employers by employés show that the plan is not widely extended. It is followed principally by old-established corporations, and the tendency is to decrease rather than to increase.

The rates for rent and board have a value in themselves, but their comparative value will be better shown when the statistics of wages and prices in 1885 appear, as they will, in the Bureau report for 1890.

The facts concerning dwellings owned by employés are reliable as far as they go, but they are not conclusive. In a few years, when the co-operative bank system has had full opportunity to show its possibilities and usefulness, an exhaustive investigation into the subject of the number of houses owned by workingmen, in all branches of business, will be required, and will be undertaken by the Bureau.



PART IV.

THE GROWTH OF MANUFACTURES.

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Manufacturing is the principal industry of Massachusetts, and upon its maintenance and growth the prosperity of the State chiefly depends. In 1885, the combined products of agriculture and the fisheries, and the income from commerce, amounted to but \$67,134,699, or 9.95 per cent of the product of manufacturing and mechanical industries, or \$674,634,269, and 9.05 per cent of \$741,768,968, the total value of the productive industries of the Commonwealth in 1885. The first industrial statistics were gathered in 1837, and in the Census laws for 1845, 1855, 1865, and 1875, provision was made for securing the statistics of manufactures, mining, the fisheries, and commerce. The United States Censuses of 1870 and 1880 also supplied statistics of industry, and in 1882 the legislature of this State made an appropriation in order that a special abstract could be prepared and printed; it contained information obtained by the United States Census of 1880, but given in greater detail than in the United States publications. In 1886, a law was passed empowering the Bureau to collect and print annual statistics of manufactures, and reports for three years, 1886, 1887, and 1888, have already been issued.

In the sixteenth annual report of this Bureau, for 1885, a historical review of wages and prices from 1752 to 1860 was presented. The preparation of such a history naturally involved a consideration of the origin and growth of manufactures. As a prelude to the subject under consideration, that history would have been most appropriate to reproduce here, but as it has been reprinted in pamphlet form by order of the legislature, the reader is necessarily referred thereto. We

present, however, an abstract of the table of contents showing the matters therein considered.

The Early Industrial Period, or Previous to 1815. — What industries had been established; how the industries were conducted; what machines had been introduced; the hours of labor; household comforts possessed by the laborer; educational and social advantages; means of transportation; facilities possessed by the workingman for changing his location; wages, and the purchasing power of money.

The Period of Transition, from 1815 to the Close of 1830. — The introduction of the factory system; the introduction of labor saving machinery; the early expansion of the cotton industry; number of cotton mills in the United States in 1810; the effects of the war of 1812 upon production; the early tariff legislation; the development of American manufactures, and condition of the laborer; the course of wages during the transition period; comparative wages in England, France, and the United States, in 1825; the progress of immigration in the United States.

The Present Industrial Period, since 1830. — The development of invention; the wonderful increase in inventions; the effect of machinery upon the condition of labor; the influence of machinery upon the boot and shoe industry; the progress of the cotton industry: 1831-1880; productive capacity of cotton mill operatives; increase of product per operative; increase in wages of cotton mill operatives; decrease in average daily working time; decrease in average prices of products; the increase in wages in leading industries; advance in wages: 1850-1880; relation of capital to net product; the proportionate cost of labor reduced by the use of machinery; ratio of wages and capital to net product, for all industries; ratio of wages to net product: 1850 and 1880; ratio of capital to net profit: 1850 and 1880; the mobility of labor; the status of the laborer before the law; digest of labor legislation in Massachusetts.

The digest of labor legislation covered the period from 1833 to 1875. The Report for 1890 will contain a Part devoted to labor legislation, giving in full the text of all laws in force in 1890. It will be arranged both chronologically and by subjects.

There are three special presentations contained in this Part. They are —

1. The date of establishment of existing firms and corporations.
2. The names of founders of existing establishments.
3. The growth of manufactures. Comparative industrial statistics from the Censuses of 1845, 1855, 1865, 1875, and 1885.

We pass, at once, to the consideration of the first subject.

THE DATE OF ESTABLISHMENT OF EXISTING FIRMS AND CORPORATIONS.

In the schedule used to secure industrial statistics in 1885, there was an inquiry calling for the date of establishment of each manufactory, and the information given herewith is derived from the replies to that inquiry. In an explanatory paragraph among the instructions in the schedule, the following words appear :

Full replies to the inquiries will supply the needed information for a history of manufactures in this Commonwealth. They will show the years of inception of our industries, the names of the pioneers or founders of our great industries, the changes in the various firms with dates of such changes, and the information, if complete, will undoubtedly establish the fact of the stability and solid growth of the manufacturing industries of the Commonwealth.

In this presentation only existing firms and corporations are considered. An individual, doing business by himself, is considered as a firm.

Of the 23,431 establishments in the State, 22,482, or 95.95 per cent are private firms. As regards number, the 949 corporations represent but 4.05 per cent of the whole number of establishments. Of the corporations, 556, or 58.59 per cent, were originally organized as corporations, while 393, or 41.41 per cent, were originally established as private firms, but afterwards adopted a corporate organization.

We present a comparison, as regards the number of private firms and corporations, between the Census years 1875 and 1885, with percentage equivalents.

CLASSIFICATION.	NUMBER		PERCENTAGES	
	1875	1885	1875	1885
THE STATE.	22,228	23,431	100.00	100.00
Private firms,	21,708	22,482	97.66	95.95
Corporations,	520	949	2.34	4.05

We see that there has been a slight falling off in the percentage of private firms, and a proportional increase in the percentage of corporations. If we compare the number of corporations in 1875 with the number in 1885, we find a gain in 1885 of 429, or 82.50 per cent.

It must not be assumed that the 23,431 establishments existing in 1885 include all of the 22,228 existing in 1875. Changes take place daily in the manufacturing world. Failures, fires, freshets, strikes, competition, and many other causes lead to the closing up of old firms or corporations. In many cases they become extinct. In other cases new firms or corporations are organized and the business is carried on. Owing to these continual changes, decennial censuses can supply comparisons as between periods only. They supply no basis for considering the industrial progress of individual establishments or aggregates of industrial facts for the same establishments at different periods. They supply comparisons between one set of aggregates for one period and another set of aggregates for another period, but the component parts of the two aggregates are not the same.

The first series of tables shows, by industries, the number of firms and corporations established in specified years.

DATE OF ESTABLISHMENT OF EXISTING FIRMS AND CORPORATIONS:
BY INDUSTRIES. FROM THE CENSUS OF 1885.

[In the following table, the asterisk affixed to the date "1885" indicates that a period of six months only is covered, from January 1, to June 30, 1885. By "Number" is meant the number of existing firms and corporations established in the years specified.]

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Agricultural Imple- ments.</i>		<i>Artificial Teeth and Dental Work—Con.</i>		<i>Artisans' Tools —Con.</i>	
1776,	1	1842,	1	1853,	3
1785,	1	1843,	1	1855,	1
1823,	1	1844,	2	1856,	2
1835,	1	1845,	2	1857,	1
1837,	1	1846,	5	1858,	2
1838,	1	1847,	4	1859,	1
1842,	1	1849,	2	1860,	2
1844,	1	1850,	2	1861,	3
1845,	1	1851,	4	1862,	3
1848,	1	1852,	2	1863,	1
1850,	1	1853,	1	1864,	3
1851,	1	1854,	1	1865,	1
1852,	3	1855,	6	1866,	2
1858,	1	1856,	11	1867,	5
1862,	1	1857,	2	1868,	3
1865,	1	1858,	2	1869,	4
1869,	1	1859,	1	1870,	3
1875,	1	1860,	16	1871,	2
1879,	1	1861,	7	1872,	1
1881,	3	1862,	4	1873,	4
1882,	1	1863,	3	1874,	4
1883,	2	1864,	5	1875,	6
1885,*	1	1865,	11	1876,	1
Unknown,	2	1866,	9	1877,	4
TOTAL,	30	1867,	14	1878,	3
		1868,	9	1879,	6
		1869,	11	1880,	6
<i>Arms and Ammuni- tion.</i>		1870,	10	1881,	6
1800,	1	1871,	10	1882,	5
1829,	1	1872,	13	1883,	6
1835,	2	1873,	8	1884,	3
1840,	1	1874,	9	1885,*	4
1853,	2	1875,	18	Unknown,	6
1855,	1	1876,	14		
1857,	2	1877,	18	TOTAL,	140
1858,	1	1878,	11		
1860,	3	1879,	18		
1861,	1	1880,	20	<i>Awnings, Tents, and Decorations.</i>	
1864,	1	1881,	28	1847,	1
1866,	1	1882,	19	1850,	1
1868,	1	1883,	25	1853,	1
1869,	2	1884,	20	1854,	1
1870,	1	1885,*	3	1870,	1
1871,	2	Unknown,	94	1872,	1
1872,	1	TOTAL,	489	1874,	2
1874,	1			1876,	1
1875,	2	<i>Artisans' Tools.</i>		1878,	1
1876,	1	1790,	1	1880,	1
1878,	2	1830,	1	1885,*	1
1879,	2	1832,	1	Unknown,	2
1881,	1	1834,	1		
1882,	1	1835,	2	TOTAL,	14
1884,	1	1836,	2		
Unknown,	5	1837,	1	<i>Boots and Shoes.</i>	
TOTAL,	40	1840,	2	1794,	1
		1841,	1	1805,	1
<i>Artificial Teeth and Dental Work.</i>		1842,	2	1812,	2
1825,	1	1844,	2	1817,	1
1835,	2	1845,	2	1818,	1
1836,	2	1846,	2	1819,	2
1837,	1	1847,	2	1820,	1
1838,	4	1848,	2	1821,	2
1839,	2	1849,	1	1825,	3
		1850,	6	1828,	2
		1852,	2	1830,	4

Date of Establishment: By Industries—Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Boots and Shoes</i> — Con.		<i>Boxes (Paper and Wooden) — Con.</i>		<i>Brick, Tiles, and Sew- er Pipe — Con.</i>	
1831,	1	1849,	1	1870,	9
1832,	3	1850,	10	1871,	3
1833,	2	1851,	2	1872,	1
1834,	4	1852,	3	1873,	5
1835,	3	1853,	1	1874,	2
1836,	8	1854,	2	1875,	6
1837,	4	1855,	5	1876,	2
1838,	2	1856,	5	1877,	1
1839,	6	1857,	1	1878,	2
1840,	15	1858,	2	1879,	5
1841,	5	1859,	1	1880,	2
1842,	10	1860,	3	1881,	5
1843,	12	1861,	1	1882,	4
1845,	15	1862,	4	1883,	4
1846,	7	1863,	2	1884,	5
1847,	7	1864,	1	1885,*	2
1848,	7	1865,	2	Unknown,	7
1849,	7	1866,	5		
1850,	23	1867,	7	TOTAL,	114
1851,	10	1868,	1		
1852,	10	1869,	3		
1853,	13	1870,	8	<i>Brooms, Brushes, and Mops.</i>	
1854,	8	1871,	10	1792,	1
1855,	18	1872,	4	1825,	1
1856,	18	1873,	6	1831,	1
1857,	11	1874,	6	1840,	1
1858,	14	1875,	6	1845,	1
1859,	23	1876,	8	1850,	1
1860,	36	1877,	5	1851,	1
1861,	25	1878,	6	1852,	1
1862,	21	1879,	15	1855,	1
1863,	24	1880,	7	1857,	3
1864,	22	1881,	9	1860,	2
1865,	61	1882,	8	1861,	1
1866,	54	1883,	14	1862,	1
1867,	32	1884,	10	1864,	2
1868,	33	1885,*	7	1865,	4
1869,	38	Unknown,	7	1866,	3
1870,	78			1867,	2
1871,	49	TOTAL,	215	1868,	1
1872,	41			1869,	3
1873,	55	<i>Brick, Tiles, and Sewer Pipe.</i>		1870,	2
1874,	59	1795,	1	1871,	1
1875,	70	1800,	1	1872,	1
1876,	76	1812,	1	1873,	1
1877,	45	1820,	1	1874,	2
1878,	83	1825,	1	1875,	1
1879,	95	1830,	3	1876,	4
1880,	103	1831,	1	1877,	3
1881,	108	1834,	1	1878,	2
1882,	138	1835,	1	1879,	1
1883,	150	1839,	1	1880,	1
1884,	149	1840,	6	1881,	2
1885,*	41	1842,	1	1882,	5
Unknown,	394	1845,	1	1883,	2
TOTAL,	2,366	1846,	3	1884,	2
		1847,	1	1885,*	3
<i>Boxes (Paper and Wooden).</i>		1850,	2	Unknown,	8
1773,	1	1857,	1		
1831,	1	1860,	2	TOTAL,	72
1836,	1	1861,	1		
1837,	2	1862,	2	<i>Building.</i>	
1840,	2	1863,	1	1790,	1
1844,	1	1864,	2	1795,	1
1845,	2	1865,	6	1813,	1
1846,	4	1866,	2	1815,	1
1847,	2	1867,	2	1822,	1
1848,	1	1868,	1	1824,	1
		1869,	1	1825,	4

Date of Establishment: By Industries—Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Building—Con.</i>		<i>Burial Cases, Caskets, Coffins, etc.—Con.</i>		<i>Carpetings—Con.</i>	
1826,	3	1846,	1	1879,	3
1827,	1	1847,	1	1880,	3
1828,	2	1848,	2	1883,	1
1830,	2	1850,	2	1884,	3
1831,	4	1851,	1	1885,*	1
1832,	2	1853,	3	Unknown,	10
1833,	2	1855,	1		
1834,	4	1856,	2	TOTAL,	46
1835,	2	1857,	1		
1836,	14	1858,	1	<i>Carriages and Wag- ons.</i>	
1837,	4	1860,	3	1786,	1
1838,	6	1861,	5	1808,	1
1839,	8	1863,	1	1809,	1
1840,	21	1864,	2	1817,	1
1841,	11	1865,	1	1820,	1
1842,	17	1866,	3	1822,	2
1843,	9	1869,	2	1824,	1
1844,	15	1870,	4	1825,	3
1845,	28	1871,	6	1826,	1
1846,	38	1872,	3	1829,	2
1847,	9	1873,	1	1830,	5
1848,	29	1874,	3	1831,	3
1849,	19	1875,	2	1832,	1
1850,	45	1876,	7	1833,	4
1851,	26	1877,	1	1834,	2
1852,	21	1879,	7	1835,	4
1853,	21	1880,	5	1836,	5
1854,	24	1881,	5	1837,	4
1855,	28	1882,	2	1838,	3
1856,	66	1883,	3	1839,	4
1857,	33	1884,	4	1840,	10
1858,	28	1885,*	1	1841,	2
1859,	23	Unknown,	14	1842,	3
1860,	59	TOTAL,	113	1843,	1
1861,	54	<i>Buttons and Dress Trimmings.</i>		1844,	2
1862,	30	1845,	1	1845,	15
1863,	18	1848,	1	1846,	7
1864,	35	1857,	1	1847,	5
1865,	72	1859,	2	1849,	9
1866,	87	1866,	2	1850,	5
1867,	55	1869,	1	1851,	5
1868,	73	1874,	1	1852,	3
1869,	57	1875,	1	1853,	5
1870,	140	1878,	1	1854,	9
1871,	95	1880,	2	1855,	12
1872,	128	1883,	2	1856,	17
1873,	87	1885,*	1	1857,	2
1874,	97	TOTAL,	16	1858,	12
1875,	117	<i>Carpetings.</i>		1859,	11
1876,	159	1828,	1	1860,	22
1877,	107	1836,	1	1861,	14
1878,	115	1848,	2	1862,	6
1879,	102	1853,	1	1863,	4
1880,	139	1856,	2	1864,	6
1881,	132	1857,	1	1865,	22
1882,	159	1862,	1	1866,	19
1883,	172	1863,	1	1867,	15
1884,	152	1870,	4	1868,	13
1885,*	38	1871,	2	1869,	11
Unknown,	718	1872,	4	1870,	43
TOTAL,	3,773	1873,	1	1871,	18
<i>Burial Cases, Caskets, Coffins, etc.</i>		1874,	1	1872,	32
1800,	3	1875,	1	1873,	24
1827,	1	1876,	1	1874,	31
1829,	2	1877,	2	1875,	31
1831,	1			1876,	41
1843,	2			1877,	27
				1878,	31

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Carriages and Wag- ons—Con.</i>		<i>Clocks and Watches —Con.</i>		<i>Clothing—Con.</i>	
1879,	26	1847,	1	1868,	42
1880,	49	1850,	1	1869,	41
1881,	39	1852,	1	1870,	73
1882,	35	1854,	1	1871,	46
1883,	41	1855,	1	1872,	62
1884,	53	1856,	1	1873,	47
1885,*	22	1858,	1	1874,	74
Unknown,	139	1861,	2	1875,	58
		1864,	1	1876,	111
TOTAL,	1,013	1868,	2	1877,	73
		1869,	1	1878,	104
<i>Cement, Kaolin, Lime, and Plaster.</i>		1870,	1	1879,	106
1831,	1	1871,	1	1880,	139
1848,	1	1872,	1	1881,	118
1850,	1	1874,	1	1882,	135
1852,	1	1876,	2	1883,	174
1854,	1	1877,	2	1884,	157
1855,	2	1878,	2	1885,*	47
1856,	2	1879,	3	Unknown,	397
1867,	1	1880,	2		
1874,	1	1882,	2	TOTAL,	2,402
1875,	1	1884,	2		
1876,	1	1885,*	1		
1880,	1	Unknown,	6	<i>Concrete Walks, Pav- ing, etc.</i>	
1882,	1	TOTAL,	47	1863,	1
Unknown,	1			1866,	2
TOTAL,	16	<i>Clothing.</i>		1868,	3
		1777,	1	1869,	2
<i>Charcoal and Kin- dlers.</i>		1800,	1	1871,	1
1846,	1	1807,	1	1872,	1
1860,	1	1810,	2	1873,	2
1879,	1	1820,	2	1874,	2
1881,	1	1825,	2	1880,	1
1885,*	1	1827,	1	1881,	1
Unknown,	6	1828,	1	1882,	1
		1830,	2	1884,	3
TOTAL,	11	1833,	3	Unknown,	1
		1834,	2		
<i>Chemical Prepara- tions (Compound- ed).</i>		1835,	2	TOTAL,	20
1830,	2	1836,	2		
1850,	1	1837,	2	<i>Cooking, Lighting, and Heating Appa- ratus.</i>	
1857,	2	1838,	2	1823,	1
1863,	1	1840,	8	1826,	1
1870,	1	1841,	2	1830,	1
1872,	1	1842,	4	1836,	1
1876,	2	1843,	1	1842,	1
1878,	1	1845,	8	1847,	1
1879,	1	1846,	5	1848,	1
1880,	1	1847,	10	1850,	2
1881,	1	1848,	4	1851,	3
1882,	3	1849,	8	1853,	2
1883,	3	1850,	14	1854,	3
1884,	3	1851,	6	1855,	2
TOTAL,	23	1852,	12	1858,	1
		1853,	10	1859,	1
<i>Clocks and Watches.</i>		1854,	5	1860,	1
1792,	1	1855,	6	1861,	2
1793,	1	1856,	22	1864,	2
1820,	1	1857,	10	1866,	3
1845,	1	1858,	13	1869,	1
		1859,	6	1874,	3
		1860,	26	1876,	3
		1861,	27	1877,	5
		1862,	16	1878,	3
		1863,	18	1879,	4
		1864,	25	1880,	2
		1865,	25	1881,	2
		1866,	50		
		1867,	30		

Date of Establishment: By Industries—Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Cooking, Lighting, and Heating Appa- ratus—Con.</i>		<i>Cotton Goods—Con.</i>		<i>Drugs and Medicines —Con.</i>	
1882,	4	1840,	3	1800,	1
1883,	3	1841,	1	1808,	1
1884,	3	1842,	1	1810,	2
1885,*	2	1843,	1	1815,	1
Unknown,	1	1844,	2	1817,	1
		1845,	2	1818,	1
TOTAL,	65	1846,	4	1819,	1
		1847,	3	1820,	1
<i>Cordage and Twine.</i>		1848,	2	1822,	2
1824,	1	1849,	1	1823,	1
1832,	1	1850,	2	1825,	1
1835,	1	1851,	1	1826,	3
1842,	3	1852,	4	1827,	1
1845,	1	1853,	1	1830,	3
1849,	1	1854,	3	1831,	1
1850,	1	1856,	1	1833,	1
1852,	1	1857,	1	1834,	2
1853,	1	1859,	3	1835,	1
1854,	2	1860,	3	1836,	2
1860,	1	1862,	2	1837,	5
1864,	1	1863,	5	1838,	3
1865,	1	1864,	1	1839,	3
1867,	2	1865,	2	1840,	3
1869,	2	1866,	5	1841,	5
1872,	2	1867,	3	1842,	9
1873,	2	1868,	4	1843,	2
1874,	2	1869,	2	1844,	4
1875,	2	1870,	2	1845,	8
1876,	3	1871,	12	1846,	6
1877,	2	1872,	5	1847,	3
1878,	2	1873,	3	1848,	10
1879,	1	1874,	2	1849,	5
1880,	5	1876,	2	1850,	13
1881,	1	1877,	5	1851,	5
1882,	2	1878,	3	1852,	5
1883,	2	1879,	2	1853,	10
1884,	5	1880,	4	1854,	5
Unknown,	1	1881,	9	1855,	4
		1882,	7	1856,	5
TOTAL,	52	1883,	5	1857,	5
		1884,	4	1858,	7
<i>Corks, Bungs, and Taps.</i>		1885,*	4	1859,	9
1849,	1	Unknown,	3	1860,	16
1863,	1			1861,	9
1871,	1	TOTAL,	165	1862,	6
1882,	1			1863,	4
		<i>Cotton, Woollen, and Other Textiles.</i>		1864,	9
TOTAL,	4	1795,	1	1865,	18
<i>Cotton Goods.</i>		1816,*	1	1866,	15
1800,	1	1880,	1	1867,	12
1813,	3	1882,	1	1868,	17
1814,	3			1869,	15
1820,	1			1870,	36
1821,	2	TOTAL,	4	1871,	21
1823,	3			1872,	31
1824,	1	<i>Crayons, Pencils, Crucibles, etc.</i>		1873,	25
1826,	1	1835,	1	1874,	23
1828,	1	1851,	1	1875,	19
1830,	1	1860,	1	1876,	26
1831,	1	1865,	1	1877,	23
1832,	3	1880,	1	1878,	26
1833,	1	1881,	1	1879,	32
1834,	1	1882,	1	1880,	33
1835,	3			1881,	37
1836,	3	TOTAL,	7	1882,	38
1837,	1			1883,	43
1839,	2	<i>Drugs and Medicines.</i>		1884,	55
		1639,	1	1885,*	9
		1797,	1	Unknown,	155
				TOTAL,	916

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified
<i>Dyestuffs.</i>		<i>Electroplating—Con.</i>		<i>Fine Arts and Taxidermy—Con.</i>	
1839,	1	1876,	6	1877,	1
1840,	2	1879,	2	1878,	1
1858,	1	1880,	2	1883,	4
1870,	1	1881,	1	1884,	3
1875,	3	1883,	3	Unknown,	6
1876,	1	1884,	3		
		Unknown,	2		
TOTAL,	9	TOTAL,	35	TOTAL,	23
<i>Earthen, Plaster, and Stone Ware.</i>		<i>Emery and Sand Paper and Cloth, etc.</i>		<i>Fireworks and Matches.</i>	
1765,	1	1856,	1	1850,	1
1783,	1	1858,	1	1861,	1
1799,	1	1867,	1	1866,	1
1800,	1	1868,	1	1867,	1
1812,	1	1869,	2	1876,	1
1816,	1	1877,	1		
1820,	1	1878,	1	TOTAL,	5
1843,	1	1880,	2		
1847,	1	1881,	2	<i>Flax, Hemp, and Jute Goods.</i>	
1852,	1	1882,	1	1849,	1
1864,	1	1883,	1	1852,	1
1867,	1			1866,	1
1868,	1	TOTAL,	13	1870,	1
1869,	1	<i>Fancy Articles.</i>		1872,	2
1871,	1	1810,	1	1875,	1
1876,	1	1827,	1	1876,	1
1880,	2	1854,	1	Unknown,	1
1881,	3	1858,	1		
Unknown,	1	1860,	1	TOTAL,	9
TOTAL,	22	1867,	1		
<i>Electrical Apparatus and Appliances.</i>		1876,	2	<i>Food Preparations.</i>	
1835,	1	1878,	3	1638,	1
1856,	1	1879,	1	1643,	1
1858,	1	1881,	1	1675,	2
1863,	2	1882,	1	1677,	1
1871,	1	1883,	1	1684,	1
1874,	1	1884,	1	1685,	1
1876,	2	Unknown,	2	1686,	1
1877,	1			1690,	1
1878,	1	TOTAL,	18	1704,	1
1880,	3	<i>Fertilizers.</i>		1735,	3
1881,	4	1856,	1	1740,	1
1882,	4	1861,	2	1760,	3
1883,	11	1863,	2	1780,	1
1884,	6	1871,	1	1785,	1
Unknown,	1	1879,	1	1787,	1
TOTAL,	40	1880,	1	1789,	1
<i>Electroplating.</i>		1881,	2	1790,	1
1842,	1	1882,	1	1791,	1
1843,	1	1883,	1	1792,	2
1846,	1	1884,	5	1794,	1
1851,	1			1795,	1
1853,	1	TOTAL,	17	1800,	2
1854,	1	<i>Fine Arts and Taxidermy.</i>		1801,	2
1857,	1	1836,	1	1803,	1
1866,	2	1854,	1	1805,	2
1868,	1	1860,	1	1806,	1
1869,	1	1863,	1	1807,	1
1870,	2	1870,	1	1808,	1
1873,	1	1872,	1	1812,	3
1874,	1	1875,	1	1813,	1
1875,	1	1876,	1	1815,	2
				1816,	1
				1818,	3
				1820,	2
				1821,	1
				1822,	2

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Food Preparations</i> — Con.		<i>Furniture — Con.</i>		<i>Gas and Residual</i> <i>Products — Con.</i>	
1823,	1	1829,	2	1860,	6
1824,	1	1830,	4	1864,	1
1825,	5	1833,	2	1865,	2
1826,	4	1835,	3	1866,	1
1828,	1	1836,	2	1870,	1
1830,	7	1838,	3	1873,	2
1832,	3	1839,	1	1874,	2
1833,	1	1840,	6	1877,	2
1834,	1	1841,	2	1880,	1
1835,	12	1842,	6	1884,	2
1836,	5	1844,	1		
1837,	5	1845,	1	TOTAL,	66
1838,	3	1846,	1		
1839,	5	1847,	5	<i>Glass.</i>	
1840,	16	1848,	2	1818,	1
1841,	3	1849,	2	1825,	1
1842,	4	1850,	14	1828,	1
1843,	1	1852,	5	1835,	1
1844,	4	1853,	1	1850,	1
1845,	5	1854,	6	1852,	1
1846,	8	1855,	5	1854,	2
1847,	6	1856,	5	1855,	1
1848,	11	1857,	5	1856,	2
1849,	12	1858,	7	1860,	1
1850,	21	1859,	1	1874,	1
1851,	8	1860,	4	1875,	1
1852,	10	1861,	8	1877,	1
1853,	12	1862,	4	1878,	1
1854,	7	1863,	4	1881,	1
1855,	12	1864,	12	1882,	1
1856,	23	1865,	13	1884,	1
1857,	6	1866,	10	Unknown,	1
1858,	5	1867,	6		
1859,	12	1868,	12	TOTAL,	20
1860,	46	1869,	12		
1861,	15	1870,	13	<i>Glue, Isinglass, and</i> <i>Starch.</i>	
1862,	9	1871,	10	1808,	1
1863,	15	1872,	15	1830,	2
1864,	19	1873,	14	1831,	1
1865,	26	1874,	18	1837,	1
1866,	31	1875,	18	1853,	1
1867,	19	1876,	22	1854,	1
1868,	40	1877,	12	1858,	1
1869,	26	1878,	30	1861,	1
1870,	57	1879,	25	1863,	1
1871,	34	1880,	34	1867,	1
1872,	49	1881,	23	1868,	1
1873,	29	1882,	31	1870,	3
1874,	44	1883,	33	1872,	3
1875,	61	1884,	31	1873,	1
1876,	58	1885,*	20	1875,	3
1877,	52	Unknown,	63	1876,	2
1878,	58			1877,	1
1879,	62	TOTAL,	693	1879,	2
1880,	69			1881,	1
1881,	83	<i>Gas and Residual</i> <i>Products.</i>		1884,	1
1882,	72	1823,	1	1883,	1
1883,	94	1846,	1		
1884,	97	1847,	1	TOTAL,	29
1885,*	41	1848,	2		
Unknown,	211	1849,	2	<i>Hair Work (Animal</i> <i>and Human).</i>	
TOTAL,	1,711	1850,	4	1837,	1
<i>Furniture.</i>		1852,	6	1840,	4
1780,	2	1853,	12	1843,	1
1820,	1	1854,	8	1847,	1
1822,	1	1855,	2	1848,	1
1823,	1	1857,	3	1853,	1
1826,	1	1858,	1	1855,	1
1828,	3	1859,	3		

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Hair Work (Animal and Human)—Con.</i>		<i>Ink, Mucilage, and Paste—Con.</i>		<i>Leather—Con.</i>	
1856,	1	1846,	1	1810,	1
1857,	1	1856,	1	1812,	1
1859,	1	1858,	1	1815,	1
1860,	1	1864,	1	1819,	1
1861,	1	1865,	1	1820,	1
1862,	1	1866,	2	1821,	1
1865,	1	1872,	1	1823,	1
1867,	3	1877,	1	1825,	1
1869,	1	1878,	1	1826,	1
1871,	2	1880,	2	1827,	2
1872,	2	1881,	1	1828,	1
1873,	3	1882,	1	1829,	1
1874,	4	1883,	2	1830,	5
1875,	1	1884,	2	1831,	2
1876,	2			1832,	5
1877,	2	TOTAL,	20	1833,	2
1878,	1			1834,	1
1881,	1	<i>Ivory, Bone, Shell, and Horn Goods, etc.</i>		1835,	6
1882,	2	1823,	2	1836,	9
1883,	2	1824,	1	1837,	4
1884,	4	1836,	1	1838,	6
1885,*	1	1840,	1	1839,	4
Unknown,	7	1843,	1	1840,	4
TOTAL,	55	1846,	1	1841,	3
		1847,	2	1842,	4
<i>Hose: Rubber, Linen, etc.</i>		1852,	1	1843,	2
1857,	1	1854,	1	1844,	2
1873,	1	1862,	1	1845,	15
1876,	1	1864,	1	1846,	6
TOTAL,	3	1868,	3	1847,	7
		1869,	1	1848,	8
<i>Hosiery and Knit Goods.</i>		1870,	1	1849,	9
1837,	1	1871,	1	1850,	8
1843,	1	1872,	2	1851,	7
1846,	1	1876,	5	1852,	6
1850,	1	1879,	3	1853,	5
1852,	1	1880,	2	1854,	4
1858,	1	1881,	2	1855,	5
1860,	2	1882,	1	1856,	11
1864,	1	1883,	1	1857,	7
1865,	4	1884,	2	1858,	7
1867,	2	1885,*	1	1859,	9
1868,	2	Unknown,	1	1860,	14
1869,	2			1861,	8
1870,	1	TOTAL,	39	1862,	8
1871,	1			1863,	8
1872,	2	<i>Jewelry, Burnishing and Lapidary Work.</i>		1864,	7
1874,	2	1860,	1	1865,	15
1875,	1	1865,	1	1866,	14
1876,	1	1876,	1	1867,	16
1878,	3	1879,	1	1868,	10
1880,	5	1884,	1	1869,	10
1881,	5	Unknown,	1	1870,	23
1882,	4			1871,	12
1883,	6	TOTAL,	7	1872,	18
1884,	1			1873,	14
1885,*	2	<i>Leather.</i>		1874,	15
Unknown,	4	1690,	1	1875,	13
TOTAL,	60	1773,	1	1876,	27
		1775,	1	1877,	28
<i>Ink, Mucilage, and Paste.</i>		1782,	2	1878,	25
1816,	1	1798,	1	1879,	23
1842,	1	1800,	5	1880,	32
		1803,	1	1881,	20
				1882,	16
				1883,	33
				1884,	43
				1885,*	10
				Unknown,	43
				TOTAL,	699

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified
<i>Linen.</i>		<i>Liquors: Malt, Distilled, and Fermented — Con.</i>		<i>Lumber — Con.</i>	
1835,	1	1854,	3	1818,	1
1846,	1	1855,	1	1820,	1
1880,	1	1856,	1	1825,	4
TOTAL,	3	1857,	1	1826,	1
<i>Liquors and Beverages (Not Spirituous).</i>		1858,	4	1827,	3
1786,	1	1859,	1	1828,	3
1840,	1	1860,	7	1830,	7
1848,	1	1861,	2	1832,	1
1855,	3	1864,	2	1833,	1
1856,	3	1865,	3	1834,	2
1859,	2	1866,	5	1835,	9
1863,	1	1867,	3	1836,	3
1865,	1	1868,	5	1837,	4
1866,	2	1869,	5	1838,	1
1867,	2	1870,	11	1839,	1
1868,	1	1871,	5	1840,	7
1869,	2	1872,	6	1842,	1
1870,	2	1873,	3	1843,	2
1872,	2	1874,	4	1844,	3
1873,	1	1875,	7	1845,	5
1874,	4	1876,	7	1846,	4
1875,	3	1877,	4	1847,	6
1876,	1	1878,	14	1848,	1
1877,	2	1879,	5	1849,	2
1878,	2	1880,	13	1850,	4
1879,	3	1881,	7	1851,	1
1880,	2	1882,	9	1852,	2
1881,	5	1883,	8	1854,	6
1882,	4	1884,	12	1855,	10
1883,	3	1885,*	3	1856,	5
1884,	4	Unknown,	18	1857,	4
1885,*	4	TOTAL,	218	1858,	2
Unknown,	1	<i>Lumber.</i>		1859,	2
TOTAL,	63	1650,	1	1860,	12
<i>Liquors: Malt, Distilled, and Fermented.</i>		1660,	1	1861,	3
1710,	1	1668,	1	1862,	1
1768,	1	1672,	1	1863,	7
1780,	1	1685,	1	1864,	2
1790,	1	1710,	1	1865,	10
1800,	1	1725,	1	1866,	10
1809,	1	1730,	1	1867,	7
1810,	3	1735,	2	1868,	11
1812,	1	1745,	1	1869,	15
1826,	1	1755,	1	1870,	5
1828,	1	1757,	1	1871,	7
1830,	3	1759,	1	1872,	13
1831,	1	1760,	2	1873,	1
1832,	1	1761,	1	1874,	10
1835,	1	1770,	1	1875,	7
1838,	1	1773,	1	1876,	7
1839,	1	1775,	5	1877,	4
1840,	2	1776,	1	1878,	11
1842,	1	1779,	1	1879,	11
1844,	1	1780,	1	1880,	18
1845,	1	1782,	1	1881,	11
1846,	2	1783,	3	1882,	14
1847,	2	1785,	1	1883,	17
1848,	2	1787,	1	1884,	16
1849,	2	1790,	2	1885,*	11
1850,	3	1791,	1	Unknown,	62
1851,	2	1798,	1	TOTAL,	466
1853,	1	1800,	7	<i>Machines and Machinery.</i>	
		1804,	1	1786,	1
		1806,	1	1807,	1
		1810,	3	1819,	1
		1812,	1	1823,	1
		1814,	1	1824,	1
		1815,	1	1826,	1
		1816,	3		

Date of Establishment: By Industries—Continued.

INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified	INDUSTRIES, AND YEARS.	Number Established in Years Specified
<i>Machines and Machinery—Con.</i>		<i>Metals and Metallic Goods—Con.</i>		<i>Metals and Metallic Goods—Con.</i>	
1827,	1	1787,	1	1880,	134
1828,	3	1790,	1	1881,	111
1829,	1	1793,	1	1882,	120
1830,	4	1800,	11	1883,	147
1831,	3	1805,	1	1884,	155
1832,	2	1807,	1	1885,*	48
1833,	2	1809,	1	Unknown,	324
1834,	2	1810,	2		
1836,	5	1811,	1	TOTAL,	2,732
1837,	3	1813,	1		
1838,	1	1817,	1	<i>Mixed Textiles.</i>	
1840,	9	1819,	1	1825,	1
1841,	1	1820,	9	1835,	1
1842,	1	1821,	1	1841,	1
1843,	1	1822,	2	1861,	1
1844,	4	1824,	2	1862,	1
1845,	4	1825,	5	1870,	1
1846,	7	1826,	1	1876,	1
1847,	4	1827,	2	1877,	1
1848,	5	1828,	6	1878,	1
1849,	2	1829,	2	1879,	1
1850,	5	1830,	8	1880,	1
1851,	5	1831,	2	1882,	2
1852,	5	1832,	7		
1853,	8	1833,	2	TOTAL,	13
1854,	6	1834,	6		
1855,	6	1835,	14	<i>Models and Patterns.</i>	
1856,	7	1836,	19	1848,	1
1857,	1	1837,	13	1851,	1
1858,	4	1838,	6	1854,	1
1859,	5	1839,	5	1857,	1
1860,	11	1840,	29	1860,	1
1861,	6	1841,	9	1861,	2
1862,	4	1842,	9	1865,	2
1863,	8	1843,	18	1866,	1
1864,	9	1844,	9	1869,	2
1865,	23	1845,	30	1870,	3
1866,	12	1846,	17	1871,	1
1867,	17	1847,	14	1872,	1
1868,	17	1848,	19	1873,	1
1869,	14	1849,	19	1874,	3
1870,	19	1850,	38	1875,	1
1871,	15	1851,	9	1876,	3
1872,	28	1852,	14	1877,	3
1873,	18	1853,	17	1878,	4
1874,	20	1854,	18	1879,	2
1875,	11	1855,	42	1880,	3
1876,	16	1856,	21	1881,	1
1877,	19	1857,	27	1882,	5
1878,	17	1858,	23	1883,	3
1879,	19	1859,	20	1884,	3
1880,	30	1860,	43	1885,*	2
1881,	29	1861,	18	Unknown,	2
1882,	34	1862,	19		
1883,	40	1863,	23	TOTAL,	51
1884,	24	1864,	19		
1885,*	10	1865,	51	<i>Musical Instruments and Materials.</i>	
Unknown,	26	1866,	52	1823,	1
TOTAL,	622	1867,	36	1827,	1
		1868,	58	1833,	1
<i>Metals and Metallic Goods.</i>		1869,	54	1836,	1
1639,	1	1870,	70	1837,	1
1700,	1	1871,	66	1840,	2
1735,	1	1872,	70	1841,	1
1750,	1	1873,	46	1843,	2
1770,	1	1874,	71	1844,	1
1776,	1	1875,	87		
1780,	2	1876,	74		
		1877,	86		
		1878,	98		
		1879,	107		

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Musical Instruments and Materials—Con.</i>		<i>Paints, Colors, and Crude Chemicals—Con.</i>		<i>Paper and Paper Goods—Con.</i>	
1847,	2	1852,	1	1885,*	2
1848,	1	1861,	1	Unknown,	1
1849,	3	1863,	3		
1850,	4	1872,	1	TOTAL,	148
1851,	4	1875,	1		
1852,	2	1878,	3	<i>Perfumes, Toilet Ar- ticles, etc.</i>	
1853,	3	1879,	3	1848,	1
1854,	3	1880,	3	1855,	1
1857,	1	1883,	1	1865,	1
1859,	1	1884,	1	1867,	1
1860,	1			1870,	1
1861,	1	TOTAL,	22	1873,	1
1862,	2			1878,	1
1863,	1	<i>Paper and Paper Goods.</i>		1880,	1
1865,	1	1770,	1	1883,	1
1866,	1	1775,	1	1885,*	1
1867,	2	1786,	1		
1868,	1	1790,	1	TOTAL,	10
1869,	2	1798,	1		
1870,	5	1800,	2	<i>Photographs and Pho- tographic Materials.</i>	
1871,	4	1801,	3	1841,	1
1873,	2	1805,	1	1846,	1
1874,	2	1809,	3	1847,	1
1875,	5	1818,	1	1848,	1
1876,	1	1822,	2	1850,	1
1877,	1	1832,	2	1851,	3
1878,	1	1833,	1	1852,	2
1879,	7	1835,	4	1853,	1
1880,	3	1836,	2	1854,	2
1881,	1	1837,	1	1857,	2
1882,	3	1838,	1	1858,	1
1883,	3	1839,	1	1859,	2
1884,	4	1840,	2	1860,	3
Unknown,	4	1844,	2	1861,	2
TOTAL,	93	1846,	1	1862,	3
<i>Oils and Illuminating Fluids.</i>		1847,	5	1863,	4
1829,	1	1848,	2	1864,	5
1836,	1	1849,	1	1865,	9
1845,	1	1850,	3	1866,	4
1850,	1	1853,	3	1867,	4
1851,	1	1854,	1	1868,	6
1855,	1	1855,	1	1869,	5
1856,	2	1856,	1	1870,	6
1859,	1	1857,	3	1871,	8
1862,	2	1858,	2	1872,	4
1865,	3	1860,	2	1873,	4
1866,	1	1862,	1	1874,	4
1868,	1	1863,	1	1875,	5
1869,	1	1864,	4	1876,	9
1871,	1	1865,	3	1877,	6
1875,	1	1866,	3	1878,	11
1876,	1	1867,	2	1879,	8
1879,	1	1869,	3	1880,	13
1880,	1	1870,	4	1881,	11
1881,	2	1871,	8	1882,	15
1883,	1	1872,	1	1883,	11
Unknown,	3	1873,	1	1884,	28
TOTAL,	23	1874,	1	1885,*	4
<i>Paints, Colors, and Crude Chemicals.</i>		1875,	1	Unknown,	26
1834,	1	1876,	1		
1837,	1	1877,	2	TOTAL,	241
1840,	1	1878,	4		
1850,	1	1879,	7	<i>Polishes and Dress- ing.</i>	
		1880,	6	1825,	1
		1881,	12	1832,	2
		1882,	9		
		1883,	3		
		1884,	7		

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Polishes and Dress- ing — Con.</i>		<i>Printing, Publishing, and Bookbinding — Con.</i>		<i>Print Works, Dye Works, and Bleach- eries — Con.</i>	
1837,	1	1841,	4	1850,	3
1840,	2	1842,	1	1852,	1
1844,	1	1843,	2	1863,	5
1852,	2	1844,	3	1864,	5
1855,	1	1845,	4	1865,	3
1857,	3	1846,	8	1866,	4
1858,	1	1847,	5	1867,	2
1860,	1	1848,	2	1868,	2
1861,	1	1849,	3	1869,	1
1863,	1	1850,	12	1871,	1
1864,	1	1851,	8	1872,	1
1865,	1	1852,	2	1873,	3
1866,	1	1853,	3	1874,	3
1867,	2	1854,	4	1875,	2
1868,	1	1855,	9	1876,	4
1869,	1	1856,	5	1877,	2
1870,	1	1857,	8	1878,	7
1872,	1	1858,	5	1880,	6
1874,	1	1859,	7	1881,	2
1875,	2	1860,	8	1882,	3
1876,	2	1861,	5	1883,	3
1877,	1	1862,	4	1884,	4
1878,	3	1863,	6	1885,*	3
1879,	2	1864,	10	Unknown,	7
1880,	5	1865,	3		
1881,	7	1866,	10	TOTAL,	96
1882,	5	1867,	18		
1883,	2	1868,	10	<i>Railroad Construc- tion.</i>	
1884,	6	1869,	11	1832,	1
1885,*	2	1870,	20	1840,	1
Unknown,	1	1871,	17	1845,	4
TOTAL,	65	1872,	39	1848,	1
		1873,	14	1849,	1
<i>Printing, Publishing, and Bookbinding.</i>		1874,	19	1854,	1
1639,	1	1875,	17	1867,	1
1768,	1	1876,	23	1873,	1
1770,	1	1877,	20	1882,	1
1786,	1	1878,	32	1885,*	1
1792,	1	1879,	27	Unknown,	2
1793,	1	1880,	37		
1795,	1	1881,	36	TOTAL,	15
1797,	1	1882,	36		
1798,	1	1883,	36	<i>Rubber and Elastic Goods.</i>	
1800,	3	1884,	43	1828,	1
1807,	1	1885,*	11	1837,	1
1812,	1	Unknown,	35	1853,	1
1813,	3	TOTAL,	712	1863,	3
1816,	1			1864,	1
1820,	1	<i>Print Works, Dye Works, and Bleach- eries.</i>		1868,	1
1821,	2	1804,	1	1870,	1
1822,	2	1812,	1	1872,	2
1823,	3	1813,	1	1873,	1
1824,	2	1821,	1	1874,	2
1825,	2	1829,	1	1876,	3
1826,	1	1830,	1	1877,	3
1827,	3	1831,	1	1878,	3
1828,	3	1833,	1	1879,	1
1830,	5	1834,	1	1880,	1
1831,	3	1835,	2	1881,	4
1832,	1	1836,	1	1882,	3
1833,	2	1840,	2	1883,	1
1834,	2	1844,	1	1884,	1
1835,	2	1845,	1	1885,*	1
1836,	3	1846,	1	Unknown,	1
1837,	3	1847,	1		
1838,	3	1849,	1	TOTAL,	41
1840,	9				

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Salt.</i>		<i>Shipbuilding — Con.</i>		<i>Sporting and Athletic Goods — Con.</i>	
1790,	1	1840,	7	1878,	1
1810,	1	1841,	2	1879,	1
1820,	1	1842,	1	1880,	1
1827,	1	1845,	3	1882,	2
1870,	1	1846,	3	1883,	4
		1847,	3	1884,	6
TOTAL,	5	1848,	1	Unknown,	2
		1849,	1		
<i>Scientific Instruments and Appliances.</i>		1850,	1	TOTAL,	27
1770,	1	1851,	3		
1826,	1	1852,	5	<i>Stone.</i>	
1830,	1	1854,	5	1802,	1
1832,	1	1855,	6	1813,	1
1833,	1	1856,	5	1820,	1
1834,	1	1857,	4	1825,	2
1845,	1	1859,	3	1826,	1
1854,	1	1860,	6	1830,	6
1855,	1	1861,	4	1834,	1
1858,	2	1862,	2	1835,	2
1859,	1	1863,	5	1836,	1
1860,	2	1864,	1	1837,	1
1861,	1	1865,	7	1839,	2
1862,	1	1866,	8	1840,	4
1863,	1	1867,	4	1842,	2
1864,	3	1868,	5	1843,	2
1865,	3	1869,	7	1844,	3
1866,	2	1870,	7	1845,	4
1867,	2	1871,	5	1846,	2
1868,	1	1872,	4	1847,	2
1870,	4	1873,	6	1848,	3
1871,	3	1874,	4	1849,	1
1872,	1	1875,	9	1850,	5
1873,	2	1876,	4	1851,	3
1874,	3	1877,	8	1852,	2
1875,	1	1878,	4	1853,	3
1876,	1	1879,	15	1854,	5
1877,	1	1880,	6	1855,	6
1879,	2	1881,	11	1856,	2
1880,	2	1882,	6	1857,	6
1881,	4	1883,	14	1858,	3
1882,	1	1884,	9	1859,	4
1883,	5	Unknown,	41	1860,	3
1884,	4	TOTAL,	279	1861,	1
1885,*	1			1862,	1
Unknown,	2	<i>Silk and Silk Goods.</i>		1863,	4
TOTAL,	65	1838,	1	1864,	3
		1840,	1	1865,	8
<i>Shipbuilding.</i>		1848,	1	1866,	7
1733,	1	1849,	2	1867,	3
1752,	1	1870,	1	1868,	6
1770,	1	1876,	1	1869,	5
1780,	1	1878,	2	1870,	18
1782,	1	1881,	2	1871,	9
1787,	1	1884,	1	1872,	14
1800,	1	TOTAL,	12	1873,	12
1805,	1			1874,	13
1815,	1	<i>Sporting and Athletic Goods.</i>		1875,	13
1820,	2	1823,	1	1876,	10
1823,	2	1856,	2	1877,	15
1828,	1	1858,	2	1878,	16
1830,	1	1860,	1	1879,	17
1832,	1	1862,	1	1880,	17
1833,	1	1865,	1	1881,	12
1835,	2	1871,	1	1882,	20
1836,	1	1874,	1	1883,	23
1837,	3			1884,	14
1839,	1			1885,*	8
				Unknown,	25
				TOTAL,	378

Date of Establishment: By Industries — Continued.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Straw and Palm Leaf Goods.</i>		<i>Tallow, Candles, Soap, and Grease — Con.</i>		<i>Toys and Games (Children's) — Con.</i>	
1827,	1	1872,	6	1875,	1
1828,	1	1873,	4	1878,	1
1835,	1	1874,	9	1880,	1
1836,	1	1875,	5	1881,	1
1842,	1	1876,	5	1882,	1
1846,	1	1877,	3	1884,	2
1847,	1	1878,	9	Unknown,	2
1851,	1	1879,	4		
1853,	2	1880,	1	TOTAL,	15
1856,	1	1881,	4		
1857,	1	1882,	8	<i>Trunks and Valises.</i>	
1858,	1	1883,	5	1833,	1
1860,	1	1884,	6	1840,	1
1861,	2	1885,*	3	1844,	1
1863,	1	Unknown,	5	1845,	1
1864,	1			1848,	1
1866,	3	TOTAL,	155	1852,	1
1868,	2	<i>Tobacco, Snuff, and Cigars.</i>		1855,	1
1869,	1	1800,	1	1866,	3
1870,	4	1804,	1	1869,	1
1872,	1	1812,	1	1872,	1
1873,	1	1815,	1	1876,	1
1874,	2	1845,	1	1878,	1
1877,	2	1848,	2	1879,	2
1878,	1	1850,	1	1880,	4
1879,	2	1852,	2	1882,	1
1880,	1	1855,	2	1883,	1
1881,	2	1856,	2	1884,	1
1882,	1	1858,	1		
1883,	1	1859,	1	TOTAL,	25
1884,	2	1860,	2		
Unknown,	4	1861,	3	<i>Whips, Lashes, and Stocks.</i>	
TOTAL,	47	1862,	3	1826,	1
<i>Tallow, Candles, Soap, and Grease.</i>		1863,	5	1830,	1
1816,	1	1864,	4	1835,	1
1820,	2	1865,	3	1855,	1
1827,	1	1866,	2	1857,	2
1828,	3	1867,	8	1858,	2
1830,	1	1868,	6	1862,	1
1835,	5	1869,	2	1865,	3
1836,	1	1870,	5	1866,	2
1837,	2	1871,	4	1868,	1
1838,	1	1872,	6	1869,	1
1840,	1	1873,	15	1870,	1
1842,	2	1874,	8	1871,	1
1845,	2	1875,	15	1872,	1
1848,	1	1876,	19	1873,	2
1849,	1	1877,	11	1874,	1
1850,	2	1878,	11	1875,	2
1851,	2	1879,	15	1876,	1
1852,	1	1880,	12	1877,	3
1853,	2	1881,	14	1878,	3
1855,	3	1882,	24	1879,	1
1856,	3	1883,	24	1880,	8
1857,	1	1884,	33	1881,	2
1858,	2	1885,*	19	1882,	4
1860,	6	Unknown,	13	1883,	3
1861,	1			1884,	2
1862,	2	TOTAL,	302	1885,*	2
1863,	3	<i>Toys and Games (Children's).</i>		Unknown,	7
1865,	5	1835,	1	TOTAL,	60
1866,	1	1854,	1		
1867,	1	1857,	1	<i>Wooden Goods.</i>	
1868,	4	1860,	1	1800,	1
1869,	3	1868,	2	1805,	1
1870,	7				
1871,	5				

Date of Establishment: By Industries—Concluded.

INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied	INDUSTRIES, AND YEARS.	Number Estab- lished in Years Speci- fied
<i>Wooden Goods—Con.</i>		<i>Wooden Goods—Con.</i>		<i>Woollen Goods—Con.</i>	
1807,	1	1877,	9	1860,	1
1808,	1	1878,	12	1862,	2
1810,	1	1879,	20	1863,	7
1812,	1	1880,	30	1864,	8
1816,	1	1881,	20	1865,	5
1825,	2	1882,	33	1866,	2
1829,	1	1883,	21	1867,	1
1830,	3	1884,	28	1868,	3
1834,	2	1885,*	5	1869,	2
1835,	6	Unknown,	56	1870,	3
1836,	1			1871,	4
1837,	1	TOTAL,	534	1872,	3
1838,	2			1873,	3
1839,	1	<i>Woollen Goods.</i>		1874,	7
1840,	8	1804,	2	1875,	2
1841,	3	1807,	1	1876,	4
1842,	1	1810,	1	1877,	7
1843,	4	1812,	2	1878,	2
1844,	2	1813,	4	1879,	6
1845,	8	1814,	2	1880,	13
1846,	2	1816,	1	1881,	7
1847,	5	1822,	1	1882,	9
1848,	4	1824,	1	1883,	6
1849,	1	1825,	1	1884,	8
1850,	15	1826,	2	1885,*	5
1851,	4	1828,	2	Unknown,	4
1852,	1	1830,	1		
1854,	5	1831,	2	TOTAL,	189
1855,	10	1833,	1		
1856,	10	1834,	1	<i>Worsted Goods.</i>	
1857,	4	1835,	2	1852,	1
1858,	3	1836,	2	1857,	1
1859,	2	1840,	1	1860,	1
1860,	10	1841,	1	1862,	2
1861,	5	1842,	1	1864,	1
1862,	9	1843,	3	1865,	2
1863,	6	1845,	1	1866,	1
1864,	6	1846,	1	1872,	1
1865,	10	1847,	1	1873,	1
1866,	8	1848,	5	1875,	1
1867,	9	1850,	2	1876,	1
1868,	6	1851,	1	1879,	2
1869,	8	1852,	4	1880,	2
1870,	23	1853,	3	1881,	2
1871,	16	1855,	4	1882,	1
1872,	7	1856,	3	1883,	2
1873,	11	1857,	1	1884,	1
1874,	14	1858,	3		
1875,	22	1859,	1	TOTAL,	23
1876,	14				

By examining the individual industry presentations, the date of organization of existing establishments can be seen. These dates show the growth of manufactures on the basis of existing establishments. The growth as regards amount of capital invested, value of stock used and goods made, persons employed, and other industrial features, is shown in the third division of this Part.

For All Industries, we present a recapitulation by years, the earliest year mentioned being 1636. Of existing establishments, 18 were founded prior to 1700.

RECAPITULATION BY YEARS. ALL INDUSTRIES.

[By "Number" is meant the number of existing firms and corporations established in the years specified.]

YEARS.	Number Estab- lished in Years Speci- fied	YEARS.	Number Estab- lished in Years Speci- fied	YEARS.	Number Estab- lished in Years Speci- fied
THE STATE.	23,431	THE STATE—Con.		THE STATE—Con.	
1636,	1	1793,	3	1841,	58
1639,	3	1794,	2	1842,	95
1643,	1	1795,	5	1843,	71
1650,	1	1797,	2	1844,	67
1660,	1	1798,	4	1845,	181
1668,	1	1799,	1	1846,	154
1672,	1	1800,	43	1847,	125
1675,	2	1801,	5	1848,	150
1677,	1	1802,	1	1849,	117
1684,	1	1803,	2	1850,	288
1685,	2	1804,	5	1851,	130
1686,	1	1805,	6	1852,	149
1690,	2	1806,	3	1853,	155
1700,	1	1807,	7	1854,	159
1704,	1	1808,	5	1855,	223
1710,	2	1809,	6	1856,	269
1725,	1	1810,	17	1857,	178
1730,	1	1811,	1	1858,	174
1733,	1	1812,	16	1859,	160
1735,	6	1813,	15	1860,	396
1740,	1	1814,	6	1861,	245
1745,	1	1815,	8	1862,	181
1750,	1	1816,	11	1863,	213
1752,	1	1817,	4	1864,	247
1755,	1	1818,	8	1865,	454
1757,	1	1819,	6	1866,	469
1759,	1	1820,	29	1867,	358
1760,	5	1821,	10	1868,	424
1761,	1	1822,	15	1869,	405
1765,	1	1823,	19	1870,	743
1768,	2	1824,	12	1871,	524
1770,	6	1825,	41	1872,	641
1773,	3	1826,	25	1873,	489
1775,	7	1827,	20	1874,	619
1776,	3	1828,	39	1875,	655
1777,	1	1829,	14	1876,	824
1779,	1	1830,	87	1877,	635
1780,	8	1831,	30	1878,	803
1782,	4	1832,	38	1879,	844
1783,	1	1833,	31	1880,	1,059
1785,	5	1834,	38	1881,	979
1786,	5	1835,	101	1882,	1,091
1787,	4	1836,	101	1883,	1,243
1789,	1	1837,	72	1884,	1,262
1790,	9	1838,	51	1885,*	410
1791,	2	1839,	50	Unknown,	2,995
1792,	5	1840,	193		

* As the Census year ended June 30, 1885, the figures for 1885 represent a period of six months only.

In this table is shown, for All Industries, the number of establishments started in each year, beginning with 1636 and running forward to 1885. Of the whole number of establishments, 23,431, the year of organization of 2,995, or 12.78 per cent was unknown; that is, we have the date of establishment given for 20,436 establishments, or 87.22 per cent.

The preceding table, by years in detail, may be condensed for periods of years, with percentages, as follows:

RECAPITULATION BY PERIODS OF YEARS. ALL INDUSTRIES.

PERIODS OF YEARS.	Number Established in Periods of Years Specified	Percentages
THE STATE.	23,431	100.00
1636 to 1700,	19	0.08
1701 to 1770,	34	0.14
1771 to 1780,	23	0.10
1781 to 1790,	29	0.12
1791 to 1800,	67	0.29
1801 to 1810,	57	0.24
1811 to 1820,	104	0.44
1821 to 1830,	282	1.20
1831 to 1840,	705	3.01
1841 to 1850,	1,306	5.57
1851 to 1860,	1,993	8.51
1861 to 1865,	1,340	5.72
1866 to 1870,	2,399	10.24
1871 to 1875,	2,928	12.50
1876 to 1880,	4,165	17.78
1881 to 1885,*	4,985	21.28
Unknown,	2,995	12.78

* In 1885, six months only are included, to June 30, end of the Census year.

A marked growth is shown in the period from 1866 to 1870, the increase being larger than in any previous period. A still greater growth is shown from 1871 to 1875, and even greater than that from 1876 to 1880, while the period from 1881 to 1885 shows the most marked advance of any. Of the whole number of establishments, 23,431, there are 14,477, or 61.80 per cent, that were established in or since 1866. A previous period, from 1841 to 1865, represents 4,639 establishments, or 19.80 per cent; so that 45 years cover the organization of 81.60 per cent of existing establishments.

In Volume II., of the Census of 1885, a table is presented which shows, for each industry containing corporations, the year in which the first corporation was organized, and the number of corporations in existence June 30, 1885. In the presentation of the date of establishment by industries, pages 293-307 *ante*, no distinction has been made as between private firms and corporations. This has been done advisedly, for the date of establishment of a business and the date of incorporation of the same business might be widely apart. As we have previously stated, of the 949 corporations 393 were originally established as private firms, and their "date of establishment"

is the date of their original organization, and not the date of incorporation. In the tables which commence on page 352 *post*, the date of establishment of the oldest existing corporation is given for each industry in the "Analysis." The number of corporations in existence June 30, 1885, is also given, so that the growth of corporations can be ascertained from the figures presented.

THE NAMES OF FOUNDERS OF EXISTING ESTABLISHMENTS.

The manufactures schedule used in collecting the industrial statistics of 1885 contained the following inquiries in relation to each manufactory :

1. Founded by whom?
2. Year in which the present firm or corporate name was adopted?

The second series of tables, by industries, gives the date of establishment of all existing firms and corporations founded in 1860, or in any year prior to 1860, provided that the value of product in 1885 was at least \$20,000. This limitation was necessary, for the whole number of manufactories established in 1860, or in some previous year, was 4,619, or 19.70 per cent of 23,431, the whole number of establishments engaged in manufacturing and mechanical industries in the Census year.

With the limitation, as explained above, the number is reduced to 1,384, or 5.91 per cent of the total number of establishments. This shows that there were 3,235 establishments which, although started in 1860 or previously, did not turn out an annual product worth \$20,000, or about \$400 worth per week. This would seem to indicate that the small firms, as a rule, are long-lived.

The tables contain, also, the year in which the present firm or corporate name was adopted, a description of the goods made and kinds of work done, the names of founders, and such explanatory remarks as were furnished upon the schedules.

NAMES OF FOUNDERS: BY INDUSTRIES.

AGRICULTURAL IMPLEMENTS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1776	1875	Shovels	John Ames, father of Oliver Ames, commenced making shovels in West Bridgewater in 1776. Oliver Ames, founder of these works, began in Easton in 1803.
*1825	1864	Plows, fodder cutters, and wheelbarrows	Joel Nourse.
1852	1864	Plows, feed cutters, and other agricultural implements	Bildad B. Belcher.

* Previous to 1835.

ARMS AND AMMUNITION.

1829	1881	Swords of all kinds	N. P. Ames.
1835	1883	Gunpowder	Nathan Pratt.
1835	1871	Revolvers and guns	Ethan Allen.
1853	1884	Guns	Nathan R. Davis and David C. Thrasher.
1857	1857	Revolvers	Horace Smith and Daniel B. Wesson.

ARTISANS' TOOLS.

1790	1861	Boring tools (augers and bits)	Thomas Snell.
1832	1868	Circular saws and planer knives	Abel Simonds.
1834	1871	Ice tools	Abner F. Wyman.
1835	1855	Wrenches, calipers, compasses, dividers, and other artisans' tools	Stephen C. Bemis.
1836	1836	Axes and hatchets	Warren Hunt.
1841	1876	Screw wrenches	L. & A. G. Coes.
1845	1871	Engine lathes and iron planers	S. C. Coombs & Co.
1847	1847	Files	M. Gorman.
1848	1871	Machine knives	D. Lovejoy.
1852	1884	Saws	Joseph Woodrough and Wm. Clemson.
1853	1853	Heel shaves, edge planers, welt trimmers, and shoe kits	Snell & Atherton.
1853	1853	Carpenters' tools	John Buck, Richard T. Buck, and Charles Buck.
1856	1876	Bits, gimlets, and other artisans' tools	Sargent & Foster.
1857	-	Cutting dies and circles, stamps, etc.	A. M. Howe.
1860	1873	Bit braces, vises, jig saws, etc.	Levi J. Greene and Charles H. Amidon.

BOOTS AND SHOES.

1865	1854	Shoes	Thomas Emerson.
1812	1875	Men's shoes	M. C. Pratt.
1817	1875	Women and misses' high cut shoes	Josiah Newhall 1817-1842; Harrison Newhall 1842-1870; Harrison Newhall and son 1870-1875; Harrison Newhall's son 1875-1885; grandfather, son, and grandson.
1818	1878	Slippers	Leonard Johnson.
1819	1862	Boots and shoes	Tyler Batcheller.
1820	1855	Boots and shoes	Isaac Prouty.
1821	1877	Boots and shoes	Lee Clafin.
1825	1885	Boots and shoes	Jenkins Lane.
1850	1865	Slippers	Moses Nichols.
1852	1868	Boots	John M. Fales.
1854	1834	Boots and shoes	John B. Wolcott.
1854	1870	Boots and shoes	Ozi Kendall.

Names of Founders — Continued.

BOOTS AND SHOES — Continued.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1834	1882	Shoes	Francis Brigham.
1835	1870	Brogans and boots	George W. Chaplin.
1835	1871	Shoes	Seth Bryant.
1835	1883	Boots, shoes, and slippers	Daniel F. Fitts.
1836	1836	Women's boots and shoes	D. Swan.
1836	1862	Shoes	B. A. Corbin.
1836	1883	Boots and shoes	Samuel Boyd and Joseph Boyd.
1836	1883	Boots and shoes	Nathan Canterbury.
1836	-	Boots and shoes	David Lefavour.
1837	1861	Boots and shoes	Edwin Mudge.
1837	1866	Shoes	Albert Kimball.
1840	1840	Men's shoes	W. Dyer.
1840	1865	Lacings	Ezra Thayer.
1840	1869	Boots and shoes	J. Gardner & Son.
1840	1870	Boots and shoes	Thomas White.
1840	1882	Shoes	Francis P. Merriam.
1841	1871	Women's shoes	S. R. Corbin.
1841	1874	Boots and shoes	R. Hayes.
1841	-	Boots and shoes	James Tucker.
1842	1865	Boots and shoes	E. M. Dickinson.
1842	1881	Shoes and slippers	Lucius B. Evans.
1842	1882	Slippers	Paul Page.
1842	1883	Slippers	Stephen Oliver.
1842	1883	Boots and shoes	William Stevens.
1843	1850	Boots and shoes	M. C. Dizer.
1843	1861	Boots	A. T. Jones.
1843	1872	Women and misses' boots and shoes	G. W. Keene.
1843	1877	Men's boots	John D. Whicher.
1843	1882	Boots and slippers	T. P. Richardson.
1843	-	Children's boots and shoes	William A. Chase.
1843	1847	Misses and children's shoes	Joseph Harris and John F. Harris.
1843	1868	Boots and shoes (woollen and felt)	R. P. Bennett.
1843	1870	Boots and shoes	Nathaniel Howard and J. L. French.
1843	1872	Boots and shoes	Chapin Thayer.
1843	1873	Shoes	J. S. Nelson.
1843	1876	Shoes	Hiram Temple ; in 1876, Theodore Temple.
1845	1876	Women's shoes	Father of Wm. Porter. Present proprietors William Porter & Son.
1845	1882	Boots and shoes	W. T. Grammer & Co.
1845	1884	Shoes	Jonah Brown.
1846	1856	Shoes and brogans	Boyd & Corey.
1847	1847	Shoes	Caleb Copeland, Jr. and Josiah Q. Hartwell.
1847	-	Shoes	Not known.
1848	1860	Boots	L. S. Whitcomb.
1848	1867	Boots and shoes	A. Claffin.
1848	1875	Shoe laces, corset laces, and welting cord	William Franklin Jenkins and Otis M. Inman, known as Jenkins & Inman.
1848	1884	Boots	George W. Massey.
1849	1877	Shoes	C. Buffum.
1849	1880	Boots and shoes	Charles E. Denney.
1849	1881	Boots	Alexander Strong.
1849	1882	Shoes	D. S. Howard 1882; previous to this it was D. S. Howard & Co.
1850	1850	Fishing boots, pegged slippers, and hand-sewed brogans	William C. Foster.
1850	1850	Shoes	J. D. Mullen.
1850	1861	Shoes	George Johnson.
1850	1866	Women and misses' boots and shoes	N. & E. Walden.
1850	1871	Boots and shoes	Samuel Cook.
1850	1872	Boots and shoes	Erastus Thompson.
1850	1875	Boots and shoes	Samuel and Abram Crooks 1850; S. & A. Crooks & Co. 1875.
1850	1880	Button boots	William C. Lefavour.
1850	1883	Boots and shoes	Joseph Totman and Joseph B. Totman.
1850	1884	Boots and shoes	Charles H. Fitch and J. E. Otis.
1850	1885	Shoes	B. E. Cole.
1850	-	Boots	B. T. Nash.

Names of Founders — Continued.
BOOTS AND SHOES — Continued.

Date of Establishment	Year in which the Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1850	-	Inner soles of different kinds	George C. Peirce.
1851	1851	Boots and shoes	Edward Tisdale.
1851	1881	Heel stock and shoe doublings	Charles W. Warren.
1851	1885	Boots and shoes	James L. Bates and Josiah Reed to 1854; Josiah Reed to 1872, after that Josiah Reed & Sons to 1876; H. B. Reed & Co. from 1876 to 1885; Sept. 6, 1885, H. B. Reed under the style of H. B. Reed & Co.
1852	1852	Boots and shoes	W. H. Draper.
1852	1876	Boots and shoes	F. O. Howard, and in 1876 Howard & French.
1852	1879	Boots and shoes	Alexis Torrey.
1852	1882	Boots and shoes	E. M. Stowe.
1852	1883	Boots and shoes	C. H. Tilton.
1853	1864	Boots and shoes	J. F. Dane & Co., and J. F. Dane, Grinnell, & Co.
1853	1870	Boots	C. C. Houghton.
1853	1872	Shoes	A. R. Greene.
1853	1872	Boots and shoes	Benjamin F. Doak.
1853	1875	Farmers and miners' boots and shoes	Alfred B. Noyes and David P. Holmes.
1853	1882	Boots and shoes	J. H. Clapp and in 1882 Edwin Clapp.
1853	1884	Boots	C. B. Travis.
1854	1862	Boots and shoes	C. H. Aborn.
1854	1873	Boots and shoes	Howard Vinal and George W. Bailey.
1854	1875	Boots and shoes	Riley Pebbles.
1854	1876	Shoes	John O'Connell.
1854	-	Boots and shoes	D. F. Murphy.
1855	1855	Boots and shoes	Samuel Cook.
1855	1855	Boots and shoes	Amos F. Breed.
1855	1855	Boots and shoes	M. V. B. & A. A. Mower.
1855	1855	Boots, shoes, and slippers	J. H. Winchell.
1855	1875	Boots and shoes	H. O. Russell.
1855	1877	Boots and shoes	W. F. Clafin and A. Coburn.
1855	1878	Shoes	C. T. Sampson.
1855	1882	Boots and shoes	Joseph Davis.
1855	1882	Shoes	George Houghton.
1855	1882	Boots and shoes	George B. Bingham.
1856	1856	Shoes	M. C. Edson.
1856	1856	Boots and shoes	A. Hanscom.
1856	1856	Women and misses' shoes	John Dougherty.
1856	1870	Boots and shoes	C. H. Bacheller & Co.
1856	1875	Women and misses' boots and shoes	Brown & Chase.
1856	1882	Boots and shoes	George F. Howe and Nathan Hastings.
1856	-	Boots and shoes	Nahum Johnson.
1857	1857	Boots and shoes	E. H. Reynolds.
1857	1860	Boots and shoes	Charles W. Torrey and Thomas P. Young.
1857	1879	Shoe binding, seam stays, piping, imitation lacing, bands, trimmings, and imitation lace shoe fronts	M. H. Merriam and E. L. Norton.
1857	1882	Men's high boots	M. S. Reed.
1857	-	Women's boots and shoes	J. M. Attwill.
1858	1858	Shoes	J. E. Wesson.
1858	1858	Shoes	T. A. Coolidge.
1858	1865	Boots and shoes	John W. Brigham.
1858	1870	Boots	B. F. & G. W. Spinney.
1858	1873	Men's boots and shoes	J. B. & W. K. Farrar.
1858	1876	Boots	P. R. Johnson.
1858	1878	Men and women's slippers	S. K. Mitchell.
1858	1859	Shoe heels and pasted heeling	A. H. Dean.
1859	1859	Boots and shoes	Samuel Shaw and Francis Worcester.
1859	1859	Boots	Wm. McKean.
1859	1859	Slippers	E. W. Moore.
1859	1859	Slippers	John B. Nichols and Nathan B. Nichols.
1859	1859	Shoes	C. C. Farwell & Co.
1859	1872	Boots and shoes	Clark Partridge.
1859	1873	Brogans	J. F. & O. A. Felch.
1859	1880	Boots and slippers	J. B. Swett.

Names of Founders — Continued.

BOOTS AND SHOES — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1859	1882	Boots, shoes, and slippers . . .	Samuel P. Prescott.
1860	1860	Soles, heels, stiffenings, etc. . .	John Powers.
1860	1860	Cut soles	George E. Batcheller.
1860	1860	Women and misses' boots and shoes	Seth Norwood & Co.
1860	1866	Boots	H. B. Fay.
1860	1869	Boots and shoes	Daniel Moulton.
1860	1876	Boots and shoes	J. W. Reynolds.
1860	1881	Shoes	Abel Howe.
1860	1882	Boots and shoes	H. J. Chase.
1860	1885	Inner soles	Felix Carr.
1860	-	Boots and shoes	Charles Grose.
1860	-	Boots and shoes	J. C. Peach.

BOXES (PAPER AND WOODEN).

1836	1870	Cigar boxes	Solomon Ensign.
1837	1857	Nail casks, boxes, and box-boards . .	James Sprout.
1837	1878	Wooden and paper boxes	Asa Sawyer.
1844	1883	Wooden boxes	George G. Page.
1846	1863	Boxes and building lumber	Essex Co. and Lawrence Lumber Co.
1846	1871	Packing boxes	A. L. Brooks.
1850	1850	Boot and shoe boxes and paper cartons	Elon Sherman; from 1852 to 1873, E. & C. Sherman.
1850	1864	Boxes	S. E. Jewett, and in 1864 John N. B. Green.
1850	1865	Packing cases of all kinds and sawing lumber	William H. Young.
1850	1877	Boxes	Potter & Gilbert.
1850	-	Boot and shoe packing boxes	Winthrop Livermore.
1850	-	Wooden packing boxes	J. P. Woodbury.
1852	-	Boxes	William Rice and James Meacham.
1853	1875	Boxes and lumber	Henry C. Putnam.
1854	1854	Packing boxes	Charles Baker and W. J. Baker.
1855	1875	Paper boxes	George H. Dickerman.
1856	1856	Boot and shoe boxes	M. C. Phipps.
1856	1873	Wooden boxes	J. L. & J. N. Keyes.
1856	1881	Boxes	Potter & Gilbert.
1860	1877	Boot and shoe boxes	Charles Phelps.

BRICK, TILES, AND SEWER PIPE.

1812	1850	Drain pipe	Edmonds & Co.
1840	1840	Brick	S. M. Cofran.
1846	1863	Brick	Peter Hubbell.
1850	1881	Brick	John L. Sands.
1857	-	Brick	W. H. Alice.

BROOMS, BRUSHES, AND MOPS.

1845	1876	Brushes of all kinds	Harvey, Burton, & Co.
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BUILDING.

1832	-	Stair building	Watson & Bisbee.
1835	1866	Driving spruce piles	William P. Cavanagh.
1836	1872	Roofing	John Farquhar.
1836	1876	Plumbing	George Baird.

Names of Founders — Continued.

BUILDING — Continued.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1833	1833	Roofing, furnace work, and plumbing	Not known.
1839	1864	Carpentry	J. & A. Pope.
1839	-	Masonry	Isaac L. Wood.
1840	1840	Building and general jobbing	S. W. Merrill.
1840	-	Building	Albert Currier.
1841	1841	General repairing	Adoniram Hathaway.
1841	1866	Roofing	Hugh Riley.
1842	1842	Building	James T. Bassett.
1842	1842	Plumbing and coppersmithing	A. B. & S. H. Loring.
1842	1842	Building	B. F. Davies.
1842	1862	Contract work and general jobbing	John B. and Charles Wilson.
1842	1880	Masonry and building	N. T. Staples.
1842	1883	Carpentry and building	Thomas J. Whidden.
1843	-	Building sewers and roads	James Driscoll.
1844	1844	Building and jobbing	William M. Winchester.
1844	1859	Building lumber, boxes, sashes, doors, etc.	James Gleason.
1844	1874	Dwelling houses and repairing	— Varney.
1845	1848	Doors, sashes, and blinds	White & Kelley.
1845	1870	Plumbing	W. G. Backus.
1845	1870	Doors, sashes, blinds, and other building finish	Armsby & Morse from 1850-1870; C. D. Morse from 1870 to date.
1845	1873	Masonry, whitening, etc.	David H. Jacobs.
1845	1875	Plumbing, steam and gas fitting	Not known.
1845	1881	Brick masonry	Standish & Woodbury.
1845	1884	Carpentry, building, etc.	Daniel Hyde and William Mills, and in 1884, Edwin F. Hyde.
1846	1849	Carpentry	A. A. Green & Co.
1846	-	Painting	Charles H. Knox.
1846	-	Building	W. H. Coffin.
1848	1851	Plumbing	Alfred Kenrick, Jr. The partner who came in in 1851 went out in 1882 and another was taken in. The style of the firm remained the same.
1848	1877	Painting, etc.	Lucas Haberstroh; in 1877, L. Haberstroh & Son.
1848	-	Plumbing	Joseph Zane.
1849	1849	Painting	Cyrus T. Clark.
1849	1885	Building	James Fowle & Co.
1849	-	Building and jobbing	O. S. Crouch.
1850	1850	Building and repairing	J. H. Burt, S. A. Burt, and George L. Burt.
1850	1858	Carpentry and building	C. E. Mead and M. G. Mason.
1850	1865	Plumbing	William Mills.
1850	-	Painting, paper-hanging, setting glass, and repairing	M. Sullivan.
1850	-	Carpentry and building	A. Norris & Co.
1850	-	Building and jobbing	W. J. Nelson.
1851	1851	Building	C. L. Shaw.
1851	1877	House and vessel painting and glazing	Edwin L. Cook.
1851	1879	Plumbing	N. S. Tucker.
1851	-	Building and jobbing	J. M. Russell.
1851	-	Carpentry, etc.	William H. Stewart.
1851	-	General jobbing and contract work	H. M. Norton.
1852	1852	Masonry	James Devine.
1852	1869	Plumbing, etc.	R. W. Norton.
1853	1853	Plastering	Thomas Parker.
1853	1871	Plumbing, etc.	John H. Stevens.
1853	1877	Building — sashes, doors, blinds, boxes, etc.	Jacob Chickering.
1853	1880	Carpentry and building	S. M. & H. H. Chesley.
1854	1862	Building	Coffin & Perkins.
1854	1865	Bridges, wharves, and foundations	Norton & Kendrick.
1854	1885	Building and building repairing	Y. E. Stuart.
1854	-	Carpentry	John N. Morris.
1854	-	Building and jobbing	Phillips & Killam.
1854	-	Masonry, etc.	Royal Harrington.
1855	1855	Building	Edward McKechnie.

Names of Founders — Continued.

BUILDING — Concluded.

Date of Establishment	Year in which the Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1855	1855	Building of all kinds and jobbing generally	Horace James.
1855	1855	Building	W. H. Wiggins.
1855	1879	Building, repairing, and mason work	William Sayward.
1855	-	Houses built and repaired	Paul Webber.
1856	1856	Building and carpentry	John D. Wester.
1856	1856	Carpentry and joinery	H. W. Eddy.
1856	1856	Building, etc.	M. S. Clark.
1856	1856	Building and jobbing	S. A. Burnham.
1856	1856	Building	William Hodgkins, 3d.
1856	1856	All kinds of building finish	W. F. Badger.
1856	1882	Finishing cabins in vessels and yachts, and repairing buildings	Ford & Peterson.
1856	-	Building	S. H. Griffin.
1856	-	Carpentry	Tyler Thayer.
1856	-	Painting and frescoing	J. B. Hand.
1856	-	Building and repairing	Augustus Lothrop.
1856	-	Building	M. G. Copp.
1857	1857	Houses and barns	J. K. Strong.
1857	1857	Sashes and blinds	W. L. Newcomb.
1857	1860	Roofing	C. S. Parker.
1857	1884	Doors, sashes, blinds, mouldings, etc.	M. C. Pratt.
1858	1858	Masonry	George Barton.
1858	1858	House painting	George E. Howe.
1858	1858	House, store, and office finish, and packing cases	John J. McNutt.
1858	1869	Building and stair building	Smith & Jacobs.
1858	1881	Carpentry and building	James W. Bennett.
1858	1883	Building and repairing	John S. Pemberton and Edward Barnaby.
1858	-	Plumbing	William Trainer & Co.
1859	1859	Houses and jobbing	Richardson & Young.
1859	1859	Carpentry and building	F. M. Severance.
1859	1878	Carpentry and building	W. A. Low; present firm W. A. Low & Son; W. A. & S. J. Low from 1861 to 1870; W. A. & S. C. Low from 1870 to 1878.
1860	1860	Building and masonry	William Tukham.
1860	1860	Houses and stores	B. D. Whitcomb.
1860	1860	Building and repairing	Joseph M. Darling.
1860	1866	Roofing	C. S. Parker & Sons.
1860	1874	Masonry	Wetherbee & Derby.
1860	1882	Building and carpentry	A. B. & D. C. Munyan.
1860	1884	Doors, sashes, and blinds, and all kinds of house and church finish	C. T. Briggs and A. W. Allyn.
1860	1884	Finish for stores, houses, churches, etc.	Orrin Whipple; in 1884, Alfred Fitzpatrick.
1860	-	Carpentry and building	George M. Starbird.
1860	-	Carpentry and building	H. E. Taft.
1860	-	Building	F. G. Kelley.

BURIAL CASES, CASKETS, COFFINS, ETC.

1848	1863	Coffin plates, coffin hinges, and lining tacks	Eli Eldridge.
1850	1880	Caskets and coffins	George Sessions.
1855	1859	Caskets and coffins	D. & W. L. Lockhart.

BUTTONS AND DRESS TRIMMINGS.

1845	1880	Buttons	Samuel Williston.
1848	1879	Buttons	Dimond Chaudler.
1859	1872	Dress and cloak trimmings	A. B. Fiedler, E. V. Fiedler, and Augustus Fiedler.

Names of Founders — Continued.

CARPETINGS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1828	—	Carpeting	Not known.
1836	1880	Carpet lining	Not known.
1848	1854	Brussels carpeting	H. N. & E. B. Bigelow and Henry P. Fairbanks.
1853	1881	Oil cloth	E. Fisher Talbot.
*1856	1858	Tapestry carpeting	Not known.
1856	1857	Enamelled cloth	12 subscribers; names not known.
1857	—	Ingrain carpeting, etc.	George Naylor.

* Previous to 1856.

CARRIAGES AND WAGONS.

1820	1851	Carriages	Joseph Brownell.
1822	1856	Carriages and wagons and repairing	Charles P. Tirrell.
1826	1873	Carriages	David Smith.
1834	1863	Buggies, express wagons, pungs, etc.	Moses T. Dole.
1836	1871	Wagons, etc.	E. Teel.
1840	1842	Wheels	George Forbes.
1840	1855	Carriages made and repaired	James Hall.
1840	1872	Carriages and general repairing	Joel Jenkins.
1840	1872	Carriages and wagons	Robert Henderson.
1841	1872	Caravans and sleds	W. P. Stone.
1845	1884	Carriage axles	David Dalzell.
1846	1846	Carriages	George L. Brownell.
1848	1848	Wheels and carriage parts	T. T. Merrill, J. B. Sargent, E. A. Goodwin, and others.
1849	1863	Carriages	J. A. Peck.
1850	1870	Children's carriages	Charles R. Field.
1850	1876	Carriages	M. G. Clement.
1850	1878	Carriages and sleighs	Amos T. Small.
1851	—	Carriages	John A. Scott & Son.
1854	1874	Carriages and wagons	J. A. J. Sawyer.
1854	1885	Carriages and wagons made and repaired	Thomas Strangman.
1855	1880	Sleighs	D. W. Forbes, B. W. Forbes, A. J. Bernap, and H. E. Brigham.
1857	1857	Buggies, beach wagons, carryalls, and harnesses	M. W. Quinlan.
1857	1860	Carriages made and repaired	Russ, Eastland, & Co.
1857	1883	Carriages	J. B. Juddins.
1858	1858	Carriages and wagons	John J. Henderson and Robert Henderson, Jr.
1858	1863	Carriages and sulkies	Joseph C. Pray.
1858	1871	Children's carriages	F. W. & F. A. Whitney.
1859	1859	Carriages	Amos P. Boardman.
1859	1859	Carriages	C. H. Noyes.
1859	1879	Carriages and sleighs	J. A. Lancaster and B. Little.
1859	1883	Light carriages	E. S. Felch.
1859	—	Carriages and sleighs	James Hume.
1859	—	Carriages made and repaired	James R. Wild.
1860	1884	Children's carriages, children's toy carriages, velocipedes, sleds, etc.	H. M. Richardson.

CEMENT, KAOLIN, LIME, AND PLASTER.

1850	1879	Sand for glass and steel works	Truman Coman and Christopher Brennan.
1852	1868	Lime	Follett & Whipple.

Names of Founders — Continued.

CHEMICAL PREPARATIONS (COMPOUNDED).

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1830	1879	Prussiate of potash and cyanide of potassium	Wing Russell.
1857	1883	Acids, drugs, etc.	Alexander Cochrane.
1857	-	Acids, drugs, etc.	Cochrane Chemical Co.

CLOCKS AND WATCHES.

1792	1880	Clocks	Eli Terry.
1852	1881	Watches, clocks, etc.	Howard, Dennison, & Davis.
1854	1885	Watch movements, silver and nickel cases	Dennison, Howard, & Davis.

CLOTHING.

1807	1842	Furs	Martin Bates.
1810	1859	Men and boys' clothing, society goods, military and furnishing goods	G. B. Simmons.
1820	1882	Custom tailoring	John G. Wyman.
1825	1854	Custom clothing	Albert Brown.
1825	1861	Umbrellas and parasols	Matthew Binney.
1828	1862	Custom clothing	John Earle.
1828	1881	Custom clothing	D. H. Dean.
1830	1882	Wool hats	Charles Ingalls.
1834	1873	Indelible ink	J. P. Williston.
1836	1876	Oil clothing	P. B. Eager.
1836	-	Custom clothing	Lewis D. Boise.
1837	1837	Tailoring	John M. Call and Thomas W. Tuttle.
1838	1848	Custom clothing	Charles A. Smith.
1840	1886	Oiled clothing and hats	B. D. Moody.
1841	-	Custom clothing	George Lyon.
1842	1883	Custom clothing	James M. Jacobs and John K. Deane, as Jacobs & Deane. Succeeded by John K. Deane, in Dec. 1883, as John K. Deane & Co.
1843	1855	Shirts	Charles A. Hewins.
1845	1845	Furs (seal sacks, muffs, etc.)	Jacob Norton.
1845	1846	Clothing	Gardner & Purbeck.
1845	-	Neckties	Hawley, Folsom, & Martin.
1846	-	Dresses, cloaks, under and outer garments, shirts, etc.	C. F. Hovey.
1847	1848	Tailoring	Hapgood & Appleton.
1847	1850	Hats and caps	Samuel O. Aborn.
1847	1858	Clothing	James H. Fearing and Benjamin L. Whitney. In 1858, Rhodes, Ripley, & Co.
1847	1869	Clothing	A. P. Ware.
1847	1878	Hats and bonnets	S. Tilton.
1847	-	Dresses, cloaks, and infants' clothing, etc.	R. H. Stearns.
1848	1872	Clothing	M. T. Hollander.
1848	1885	Clothing	E. P. Fisk and Isaac Cushing.
1849	1859	Underclothing, shirts, etc.	Hogg, Brown, & Taylor.
1850	1850	Suspenders, garter and frill web	Samuel Williston, Edward Smith, H. G. Knight, and others
1851	1851	Furs	A. N. Cook and Lewis Merriam.
1852	1852	Custom clothing	Martin Van Nason.
1852	1859	Women and children's cloaks, dresses, and bonnets	H. H. Chambers & Co.
1852	{ 1864 or 1865 }	Clothing	Tilly Haynes.
1852	1872	Custom clothing	George T. Cadwell.

Names of Founders — Continued.

CLOTHING — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1853	1853	Men and boys' clothing	Isaac Fenno.
1853	1875	Suspenders, shoe linings, and shoulder braces	Cutter & Walker.
1853	1891	Men and boys' clothing	J. Peavy, I. Peavy, and L. H. Peavy.
1854	1877	Men's clothing	Davis & Harvey.
1856	1856	Wool hats	A corporation.
1856	1856	Men's clothing (contract work)	H. Harris.
1857	1857	Hats	S. Condit.
1857	1872	Clothing	Jackman & Merrill.
1857	1880	Men's suits	Joseph R. Newman.
1858	1858	Men's suits	Charles Foster and Charles T. Barnard.
1858	1858	Custom clothing	Stephen Osgood.
1858	1865	Coats, pants, vests, overcoats, etc.	Whitten, Hopkins, & Co.
1858	-	Hats	Howe & Mitchell.
1859	-	Shirts, drawers, etc.	Howe & Walker.
1860	1860	Seal sacks, circulars, cloaks, etc.	Edward Kakas.
1860	1860	Clothing	D. M. Hodgdon.
1860	1863	Clothing	Merritt, Parkhurst, Miner, & Beal.
1860	1872	Men's clothing	Leopold Morse.
1860	1875	White, fancy, and flannel shirts, overalls, and jumpers	Not known.

COOKING, LIGHTING, AND HEATING APPARATUS.

1823	1860	Stoves and tinware	Philip Wilcox.
1826	1866	Fire-brick and stove linings	William Presbrey.
1836	1871	Stoves and castings	Thomas Parker.
1842	1876	Stoves and furnaces	Bowers & Pratt.
1850	1876	Hot-air furnaces, hot-air tin pipes, and stoves	B. W. Dunklee.
1850	1866	Gas fixtures, lamps, and brass work	Richard Hollings.
1851	1873	Hot-air furnaces and hot-air tin pipes	Joseph and Ambrose Kohler.
1851	1884	Furnaces, ranges, and stoves	Gardner Chilson.
1853	1867	Ranges and parlor stoves	Thomas J. Coggs, J. M. Hood, G. B. Hood, and others.
1853	1875	Brass andirons, fender screens, iron stove frames, fender grates, and stable fixtures	Bent, Griffith, & Co.
1854	1854	Stoves and hollow ware	Taunton Iron Works Co.
1854	1878	Lamps	Williams, Page, & Co.
1854	1879	Furnaces, ranges, and stoves	Blanchard, Tarbell, & Co.
1855	1877	Stoves, ranges, furnaces, and steam heating materials	Miles Pratt, managing partner of Pratt, Weeks, & Co.
1858	1870	Stoves, ranges, and furnaces	L. A. Thomas, George F. Gavitt, and James H. Coddington.
1859	1859	Furnaces, stove pipe, etc.	The Boston Stove Co. Incorporated in R. I. with headquarters in Providence, R. I., and a shop in connection with the salesroom in Boston.
1860	1878	Gas meters and lanterns	Tufts, Cheever, & Co.

CORDAGE AND TWINE.

1824	1824	Manila, Sisal, and tarred hemp rope, and binder twine	Bourne Spooner.
1835	1880	Rope and oakum	Benjamin Sewall and Moses Day.
1842	1846	Manila, Sisal, Russian hemp, and American hemp rope	Joseph Ricketson, William J. Rotch, and Benjamin S. Rotch.
1842	1880	Cotton and linen netting	Not known.
1845	1880	Twine	James S. Shepard.
1850	1873	Binder twine	Pearson Bros.

Names of Founders — Continued.

CORDAGE AND TWINE — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1852	1870	Twine and yarn (cotton)	Moses Whittier. Moses Whittier & Son — 1870. Moses Whittier retired in 1875 leaving H. F. Whittier sole owner and proprietor.
1853 1854	1885 1854	Manila cordage Carpet warp, wrapping twine, candle wicking, and cotton batting . . .	John Webber. Wm. B. Trafford, Augustus Chace, George W. Lewis, and E. R. Lewis.

CORKS, BUNGS, AND TAPS.

1849	1849	Corks for bottles, life preservers, bungs, taps, etc.	Richard Beeching.
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COTTON GOODS.

1800	1800	Sheeting	Not known.
1813	1813	Cotton cloth, shirts, drawers, etc. . .	A corporation.
1813	1814	Print cloth	Not known.
1813	1820	Print cloth	Dexter Wheeler and others.
1814	1814	Cotton blankets, domett, and heavy drill	Joseph White, Silas Newton, Alpheus Smith, and Peter Holmes.
1814	1814	Cotton duck	Barnabas Hedge, Jr., and others.
1814	1815	Cotton sheeting	Albert Downing.
1820	1876	Cotton dress goods	Samuel Slater.
1821	1822	Cotton flannel, domett, and diaper . .	Hall J. How & Co., Rice, Henshaw, & Co., James Means & Co., William Masters, Thomas Thaxter, and William Mansfield.
1821	1822	Cotton cloth	Samuel Rodman, Abram Bowen, Oliver Chace, William Slade, Clark Chace, Nathaniel B. Borden, Nathaniel Wheeler, and Edward Bennett.
1823	1827	Cotton flannel and sheeting	Not known.
1823	1836	Print cloth and dress goods	David Wilkinson.
1823	1840	Cotton shirting	Robert Rogerson.
1824	1824	Flannel, ticking, stripes, drill, and print cloth	Samuel Batchelder, William Appleton, Benjamin Gorham, William Sturgis, and James Lowell, Jr.
1826	1878	Print cloth and yarn	Andrew Robeson.
1828	1828	Sheeting, drill, flannel, and yarn . .	Thomas H. Perkins, Ebenezer Francis, and Samuel Appleton.
1830	1865	Cotton cloth	Bigelow & Smith.
1831	1831	Cotton cloth and hosiery yarn . . .	William Appleton, Benjamin R. Nichols, Nathan Appleton, and associates.
1832	1840	Cotton cloth and light print cloth .	Joseph Griswold.
1832	1856	Sheeting and shirting	Not known.
1832	1876	Cotton cloth	O. Arnold & Co.
1833	1882	Ticking, denim, and shirting	Silas Shepard.
1835	1835	Cotton goods	Abbott Lawrence, Nathan Appleton, and John A. Lowell.
1835	1864	Cotton yarn	— Walcott.
1835	1877	Cotton sheeting	Lewis Dexter.
1836	1836	Ticking, denim, and shirting	John S. Wright, Luther Parker, Israel Thorndike, and others.
1836	1869	Print cloth	Not known.
1836	1880	Cotton yarn	Elisha Jenks.
1837	1863	Sheeting, twine, and batting	Not known.
1839	1839	Jean, sheeting, etc.	Not known.
1839	1839	Cotton cloth	Abbott Lawrence, Ozias Goodwin, John A. Lowell, and others.

Names of Founders — Continued.

COTTON GOODS — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1840	1840	Woven and knit goods, underwear, and hose	Thomas Cordis, Augustus H. Fiske, John S. Wright, and others.
1840	1872	Checks, seersucker, cheviot, and fancy denim	Otis Company.
1840	1880	Fine and fancy cotton cloth	Oliver Chace.
1842	1843	Belting duck	George H. Mann & Son.
1843	1864	Cotton shirting	Paul, John C., Charles P., and James F. Whitin, under firm name P. Whitin & Sons.
1844	1844	Gingham	E. B. Bigelow, Stephen Fairbanks, Henry Timmins, and others.
1844	1857	Dyed cotton goods	Nelson D. White and Joseph White; in 1844 called the Nelson Mills; in 1857, Nelson D. White.
1845	1845	Twine and carpet warp	Augustus Chace and William B. Trafford.
1845	1845	Cotton duck and cotton flannel	Augustus H. Fiske, John S. Wright, Elijah Loring, and others.
1846	1846	Cotton sheeting	Abbott Lawrence, Ebenezer Chadwick, J. W. Edmands, and others.
1846	1867	Gingham and damask	William Pollock and Nathaniel Hathaway. Renfrew Manufacturing Co. in 1867.
1846	1867	Cotton warp	Adams & Seeley.
1846	1880	Print cloth	Richard Borden.
1847	1847	Cotton goods	Joseph Grinnell, Thomas Bennett, Jr., and Edward L. Baker.
1847	1847	Cotton cloth	C. W. Chapin and others.
1847	1864	Cotton yarn	I. & E. Peck.
1848	1848	Cotton goods	G. M. Atwater and associates.
1848	1848	Cotton shirting	Esek Saunders and Benjamin Saunders.
1848	1875	Ticking	Luther Parks, John S. Wright, E. P. Whitman, and others.
1850	1850	Cotton warp and quilts	E. P. Woodworth, John H. Coffing, George Coffing, J. C. & A. C. Russell, and Lorenzo H. Rice.
1850	1860	Cotton lines and banding	Smith & Jackman.
1852	1853	Cotton dress goods and yarn	Stockholders of Essex Co.
1852	1853	Print cloth	Richard Borden, Jefferson Borden, Oliver T. Hawes, and others.
1852	1871	Cotton sheeting	A corporation.
1852	1871	Cotton sheeting	A corporation.
1853	1853	Cotton duck	Albert Fearing, Isaac Thacher, and David Whiton.
1854	1854	Shirting, sheeting, drill, and lawn	A. H. Fiske, R. S. Fay, Thomas Hopkinson, and Marshal Healey.
1854	1854	Cotton duck	Not known.
1854	1854	Cottonade, blue denim, satteen, ticking, cheviot, awning cloth, skirting, and dress goods	John S. Wright, Ephraim P. Whitman, Eben Wright, and others.
1857	1870	Cotton cloth	P. Whitin & Sons.
1859	1859	Corset jean, diaper, and shirting	Jabez C. Howe, George O. Hovey, and George S. Bullens.
1859	1860	Print cloth	A corporation.
1860	1860	Denim, cottonade, and shirting	A corporation.
1860	1860	Ticking, crash, denim, dress goods, and awning cloth	David Nevins.
1860	1865	Spool cotton	Timothy Merrick, Austin Merrick, and Origen Hall.

COTTON, WOOLLEN, AND OTHER TEXTILES.

1795	1864	Beaver, cloaking, and worsted goods	Not known.
1816	1831	Fancy cassimere, delaine, tycoon rep, etc.	Woolcott Woollen Manufacturing Co. Sayles & Hitchcock, 1828.

Names of Founders — Continued.

CRAYONS, PENCILS, CRUCIBLES, ETC.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1835	1881	Carpenters' chalk and tailors' crayons	Dr. Francis Field.

DRUGS AND MEDICINES.

1810	1866	Patent medicines	Dr. A. Johnson.
1826	1869	Medical preparations	Lowe & Reed.
1826	1875	Proprietary medicines	Thomas Hollis.
1830	—	Witch-hazel and prepared herbs	N. B. Gould.
1833	1871	Patent medicines	Seth W. Fowle.
1837	1840	Salves	Redding & Co.
1837	1858	Medical preparations	Theodore Metcalf.
1840	1874	Medicines and medicine cases	Otis Clapp.
1842	1877	Patent medicines	James C. Ayer.
1845	1845	Medicines	B. O. & G. C. Wilson.
1852	1852	Proprietary medicines	Donald Kennedy.
1860	1867	Proprietary medicines	John I. Brown & Son.

DYESTUFFS.

1639	—	Dyewoods	Capt. Cook.
1840	1884	Sulphuric, muriatic, and nitric acids, chloride of tin, indigo extracts, etc.	C. P. Talbot.
1840	1884	Oil of vitriol, chloride of tin, indigo extracts, nitric and muriatic acids, etc.	C. P. Talbot & Co.
1853	1880	Laundry blue	Henry Sawyer.

EARTHEN, PLASTER, AND STONE WARE.

1765	1870	Flower pots, earthenware, etc.	Abraham Hews.
1800	1876	Flower pots	John Runey.
1812	1881	Stoneware	Barnabas Edmands.
1820	1883	Earthenware	— Felton.
1852	1875	Plates, cups, saucers, ewers, basins, and chambers	William F. Homer.

ELECTRICAL APPARATUS AND APPLIANCES.

1851	1881	Telephones, transmitters, magnets, bells, etc.	Charles Williams, Jr.
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EMERY AND SAND PAPER AND CLOTH, ETC.

1858	1858	Sandpaper	Benjamin Wiggin and William S. Stevens.
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FANCY ARTICLES.

1853	1884	Razor strops	J. R. Torrey.
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Names of Founders — Continued.

FERTILIZERS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1856	1881	Mixed guano	Thomas M. Hart.

FIREWORKS AND MATCHES.

1850	1885	Fireworks	Edward S. Hunt.
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FLAX, HEMP, AND JUTE GOODS.

1849	1866	Bags	Henry S. Chase.
1852	1868	Gunny bagging, marline, twine, webbing, and yarn	Boston Flax Mills, 1852. Ludlow Manufacturing Co., 1868. Henry Winsor, O. H. Sampson, C. T. Hubbard, and others. Flax mills merged in Ludlow Manufacturing Co. in 1879.

FOOD PREPARATIONS.

1643	1858	Corn and rye meal and graham flour	Thomas Nelson.
1740	1846	Meal and feed	Lyman E. Moore.
1760	1858	Meal and feed	Daniel Whitman.
1760	1872	Corn meal, etc.	Not known.
1780	1852	Chocolate and cocoa	James Baker.
1785	1832	Corn meal and cracked corn	D. Harthan, probably; succeeded by R. G. Cowee.
1787	1877	Ground corn and oats	Not known.
1792	1880	Pilot bread and cream biscuit	John Pearson.
1794	1862	Crackers	Not known.
1800	1880	Bread, cake, and pastry	Not known.
1800	1881	Crackers and biscuit	J. L. Kennedy.
1801	1830	Water crackers	Josiah Bent.
1805	1862	Ice	Frederic Tudor.
1807	1848	Bread, cake, and pastry	Haman Brown.
1808	1868	Bread, cake, pastry, baked beans, and brown bread	Mrs. Burnham.
1815	1849	Spices	Stickney & Poor.
1816	1877	Meal and feed	David Crittenden.
1822	—	Canned goods, etc.	William Underwood.
*1825	1854	Bread, cake, and pastry	Not known.
1825	1862	Bread, crackers, cakes, and pies	Henry Withington. Carried on since 1862 by his son Henry Withington.
1825	1872	Crackers	Colburn & Shattuck. In 1863, Boynton & Brown. In 1872, W. J. Boynton.
1826	1882	Dressed beef	Harrison Bird.
1826	1884	Crackers and cakes	Ross & Whiting. W. H. Teeling, 1864. W. H. Teeling & Co., 1884.
1828	—	Bread, cake, pastry, and crackers	Not known.
1830	1869	Meal	Nathan Tufts & Son.
1832	—	Bread, cake, pastry, and crackers	Holden & Usher.
1835	1869	Bread and pastry	A. Blood.
1835	1878	Meal	A. M. White. In 1878, Ambler & Hobart.
1835	1883	Meal	Peter C. Jones.
1836	1863	Bread, cake, and pastry	John Taylor and Thomas Taylor.
1836	1883	Corn meal	Levi Pratt.
1837	1854	Preserves, pickles, and canned goods	W. K. Lewis & Brothers.
1837	—	Bread and cakes	A. G. Bartlett.
1838	1838	Crackers	Gerritt J. Bradt and David Bradt.
1838	—	Dressed meat	John L. Merrill.
1839	1859	Crackers, cakes, etc.	Not known.
1839	1875	Crackers	B. F. James.

* Probably earlier than 1825.

Names of Founders — Continued.

FOOD PREPARATIONS — Continued.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1839	1885	Crackers and fancy biscuit . . .	Artemus Kennedy.
1840	1840	Bread, cake, and pastry . . .	Samuel N. Gaut.
1840	1859	Ice	Gage, Hittinger, & Co.
1840	1870	Ice	McFarland Brothers.
1840	1882	Slaughtering sheep and lambs and pulling wool	J. W. Hollis.
1842	1881	Lard, sausages, hams, salt pork, etc.	A. C. Hunt.
1843	1880	Refined sugar	Boston Sugar Refinery.
1844	1870	Crackers and soda biscuit . . .	Harris Pearson.
1844	1872	Bread, crackers, cake, and pastry .	D. G. Webster.
1845	1845	Yeast powder	J. P. Preston and J. W. Merrill.
1845	1855	Corn and rye meal	William Livingston.
1845	-	Candies	B. P. Clark.
1846	1865	Meal and feed	White & Ballou.
1847	1885	Baking powder and ground spices .	David and Levi Slade.
1847	-	Smoked and salt halibut and dry codfish	William H. Wonson, Michael Hurtz, and George Parkhurst.
1847	1847	Confectionery	Chase & Co.
1848	1848	Refrigerated codfish, pickled and kench-cured fish	David Conwell.
1848	1852	Corn, rye, and oat meal, and buck-wheat flour	Alfred and C. S. Platt under the firm name of Platt & Barnes in 1852. Have done business since under the name of Platt, Barnes, & Co.
1848	1868	Confectionery	Daniel Fobes.
1848	1875	Coffee, spices, cream of tartar, etc. .	George Taylor, I. F. Dwinell, and George C. Wright. In 1875, I. F. Dwinell, Martin Hayward, and George C. Wright.
1848	1880	Ground coffee and spices	John Fox.
1848	1881	Crackers, fancy biscuits, bread, cake, and pastry	G. E. Bailey.
1849	1849	Boneless fish	John Pew & Son.
1849	1865	Indian meal and oatmeal	Joseph Loud, Joseph Loud, Jr., Nathaniel Blanchard, and James Tirrell. Original partners all dead; Augustus J. Richards came into the firm in 1865 and is now the only remaining partner.
1849	1866	Bread and crackers	E. Brown & Co.
1849	1883	Sausages, bologna, head cheese, etc.	Lewis F. Merrill. In 1883, Lewis E. Merrill.
1850	1869	Beef, veal, mutton, pork, and poultry	A. Titcomb.
1850	1874	Flavoring extracts and proprietary medicines	Edward Hartshorn.
1850	1876	Feed	C. S. Merriam.
1850	1884	Mutton, lamb, and veal	P. Cornell and D. H. Cornell. In 1884, Pardon Cornell & Co.
1850	1885	Bread, cake, biscuit, and crackers .	George W. Stickney.
1851	1851	Bread, cake, pastry, and crackers .	A. H. Hastings and Stephen Mathewson.
1851	-	Dry fish	J. F. Wonson & Co.
1852	1852	Fresh and salt beef, pork, lamb, ham, and poultry	S. Winter.
1852	1852	Ice cream, cake, and confectionery .	John G. Fera.
1852	-	Cod, pollock, hake, and haddock .	William Parsons, 2nd.
1852	-	Vinegar	Amos Haynes.
1853	1866	Bread, cake, and pastry	J. & H. H. Faxon.
1853	1880	Boneless fish	Franklin Snow.
1854	1859	Bread and crackers	A. Wyman.
1854	1859	Ice	Nathaniel Webster.
1854	1882	Bread (including ship bread), cake, and pastry	N. Holder. Holder Brothers in 1882.
1854	-	Flavoring extracts	Adams & Eaton.
1855	1855	Pickles, preserves, canned goods, etc.	E. T. Cowdrey.
1855	1855	Beef, lamb, mutton, ham, etc. . . .	Josiah Martin.
1855	1868	Crackers, bread, pastry, and cake .	C. Whitney.

Names of Founders — Continued.

FOOD PREPARATIONS — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1855	1882	Biscuits, crackers of all kinds, and fancy cakes	D. H. Thurston, James H. Hall, Eben Shackley, and Louis Shaw.
1855	1883	Corn, oat, and rye meal, spices, coffee, cream of tartar, herbs, etc. . .	Benjamin I. Newhall.
1855	-	Bread and pastry	Not known.
1856	1856	Bread, cake, and pastry	Joseph Merello.
1856	1856	Pork, lard, hams, oil, etc.	John P. Squire.
1856	1856	Corn and rye meal, wheat flour, and feed	Charles Wells and P. M. Wells
1856	1871	Beef, hides, and tallow	Joseph Buck.
1856	1880	Corn and rye meal, etc.	C. L. Beals.
1856	1880	Beef, mutton, pork, lard, etc. . . .	Daniel H. Cornell.
1856	1885	Ice	Charles Edwards & Son.
1856	1885	Ice	Benjamin Walker and S. S. Sweetzer. In 1870, Benjamin Walker and L. S. White as B. Walker & Co.
1857	1875	Rye flour, wheat flour, and meal . .	Clark, Buckley, & Cole.
1859	1859	Meal and feed	C. S. Towne.
1859	1859	Bread, crackers, sea biscuit, etc. . .	D. A. Snell.
1859	1864	Pickles	George Skilton and George C. Skilton.
1859	1886	Bread, cake, and pastry	— Howard.
1860	1860	Crackers, fancy biscuit, and confectionery	N. B. Washburn.
1860	1860	Ground coffee and chicory	Not known.
1860	1860	Ice cream, cake, etc.	James Dooling.
1860	1862	Corn and oat meal, buckwheat flour, and feed	M. D. Hodge.
1860	1868	Bread, cake, and pastry	Parker & Hosely. In 1865, Downs & Sanderson; in 1868, G. A. Sanderson.
1860	1870	Dressed poultry, meats, etc.	G. F. Austin.
1860	1876	Bread, cake, and pastry	Nehemiah Sims.
1860	1880	Canned goods	J. H. W. Huckins.
1860	1882	Bread, cake, pastry, and crackers . .	Jonah P. Kent.
1860	-	Smoked halibut, pickled fins and napes, fish oil, and fish guano . . .	B. Low.

FURNITURE.

1780	1877	Parlor furniture	Jacob Forster.
1780	1877	Parlor furniture	Jacob Forster.
1830	-	Furniture	Samuel Howard and Lyman Clark.
1830	1862	Chairs and children's carriages . . .	B. F. Heywood & Co.
1830	1875	Office furniture	Stephen Smith.
1830	1885	Cane-seat chairs	Stephen Taylor.
1835	-	Upholstery trimmings	Not known.
1836	1859	Furniture and bedding	Joseph M. Doe.
1836	1877	Chairs	David Wright.
1838	1880	Chairs	P. R. Merriam.
1838	-	Desks, tables, etc.	Not known.
1840	1854	Household furniture	Jeremiah Danforth.
1840	-	Tables and stands	Caleb Mayo.
1842	1877	Chamber furniture and sideboards . .	John E. Daniels.
1842	1878	Chamber sets, desks, sofas, lounges, sideboards, etc.	Francis M. Holmes.
1844	-	Furniture, etc.	William L. Whitney and A. A. Whitney.
1847	1864	Refrigerators	Darius Eddy.
1847	1877	Furniture	Joseph B. Buckley and Charles P. Bancroft.
1847	1881	Chairs and pails	W. B. Washburn.
1849	1849	Billiard tables	Amasa W. Bailey.
1849	1851	Billiard and pool tables	John E. Came.
1850	1858	Chairs	W. & G. B. Neagle.
1850	1865	Furniture, cribs, cradles, towel racks, tables, and hall stands	Laban Morse.

Names of Founders — Continued.

FURNITURE — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1850	1866	Store and office furniture . . .	James Patterson.
1850	1868	Cane and wood seat chairs . . .	Abner White.
1850	1871	Furniture	Merriam & Parsons.
1850	1874	Chairs and settees	Artemas Merriam and George Holden.
1850	1879	Chamber suite	Benjamin Hawkes.
1850	1882	Mattresses, pillows, and spring beds	John Putnam.
1852	1862	Mattresses and pillows	A. L. Haskell.
1852	1875	Chairs and settees	Jackson & Greenwood.
1852	1879	Chairs	P. Derby.
1853	1885	Chairs	Walter Heywood.
1854	1867	Spring beds, etc.	Tyler Howe and Otis Howe.
1854	1877	Parlor furniture, easy chairs, rockers, lounges, and bed lounges	J. B. Witherell & Co.
1855	1860	Looking glasses and picture frames .	William Conant.
1855	1867	Upholstered furniture and draperies	Henry A. Turner.
1856	1870	Chairs and settees	Clark, Nichols, & Co.
1856	1873	Rattan furniture	Cyrus Wakefield.
1857	1837	Mattresses	Hervey Newell.
1857	1878	Furniture	John A. Ellis & Co.
1858	1858	Desks, tables, and hall stands . . .	Christopher Blake.
1858	1866	Furniture	Edward P. Parker.
1859	1881	Window shades and draperies . . .	Humphreys & Lawton.
1860	1860	Beds, pillows, mattresses, and bed lounges	John Holman.

GAS AND RESIDUAL PRODUCTS.

1823	1823	Gas	A corporation.
1846	1846	Gas	Incorporators: G. W. Warren, J. Dana, and William Sawyer.
1847	1880	Gas	Fall River Iron Works Co.
1848	1848	Gas	Solomon Merrick, James D. Brewer, James Barnes, and Henry Gray.
1848	1849	Gas	Several cotton mills for their own use.
1849	1849	Gas	Dr. Joseph Sargent.
1849	1849	Gas	Seth Ames, Ramson Reed, and Samuel Lawrence.
1850	1850	Gas	New Bedford Gas Light Co.
1850	1850	Gas	Joseph S. Leavitt, William H. Foster, and William Sutton.
1850	1859	Gas	Hadley Falls Co.
1852	1852	Gas	James N. Buffum, Gardner Warren, and others.
1852	1852	Gas	Charles C. Little, Isaac Livermore, and G. G. Hubbard.
1852	1852	Gas	John H. Blake and others.
1852	1862	Gas	Samuel Guild, Alvah Kittredge, and John H. Blake.
1852	1852	Gas	Isaac Stebbins.
1853	1853	Gas	John C. Pratt, M. Smith, and D. S. Greenough.
1853	1853	Gas	Ivers Phillips and George Odiorne.
1853	1853	Gas	Not known.
1853	1853	Gas	Gardner Warren and others.
1853	1853	Gas	George Odiorne, George B. Parrott, and William F. Parrott.
1853	1853	Gas	F. G. Macy, George Odiorne, and others.
1853	1853	Gas	H. Fay, J. N. Turner, and C. W. Sowders.
1853	1854	Gas	A corporation.
1853	1871	Gas	J. S. W. Clark, Eben S. Fisher, and Horatio Chickering.
1854	1854	Gas	H. L. Downs and others.
1854	1854	Gas	Joseph W. Stone, Francis Edmond, and Moses W. Rice.
1854	1854	Gas	Reuben P. Davis, Jonas H. Priest, Horatio Adams, and others.

Names of Founders — Continued.

GAS AND RESIDUAL PRODUCTS — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1854	1854	Gas	Not known.
1855	1855	Gas	H. M. Richards and others.
1859	1874	Gas	William F. Brett, H. W. Robinson, Noah Chesman, D. F. Studly, and J. R. Perkins.
1860	1860	Gas	Daniel Richards and E. D. Kimball.

GLASS.

1818	1880	Glassware	New England Glass Co.
1825	1826	Glassware	Deming Jarvis.
1828	1883	Stained and cut glass	William Redding.
1854	1864	Glassware	Amory Houghton, Francis Hough- ton, Josiah Oakes, and John P. Gregory.
1854	1883	Window and rough plate glass	A stock company.
1855	1872	Rough plate glass	Lenox Ware Co.

GLUE, ISINGLASS, AND STARCH.

1808	1859	Glue and plastering hair	Elijah Upton.
1830	1863	Starch	Not known.
1830	1870	Glue	S. N. Woodward.
1831	1840	Glue	Elijah Upton and Elijah W. Upton.
1837	1837	Glue	John M. Anderson.
1854	1860	Glue and paper sizing	Thomas Brown and Thomas Brown, Jr. In 1860, Peabody Glue Factory, William H. Brown, proprietor.
1858	1862	Isinglass	Caleb Norwood and James Manning.

HAIR WORK (ANIMAL AND HUMAN).

1840	1871	Curled hair	Manning, Glover, & Co.
1855	1855	Hair goods; men and women's head wear	John Medina.

HOSIERY AND KNIT GOODS.

1837	-	Hose and shirts	William Appleton, Benjamin R. Nichols, Nathan Appleton, and as- sociates.
1846	1883	Fleece linings and fancy knit goods.	Thomas Draper.
1850	1857	Women and men's hose	Hosea Cram.
1852	1852	Mittens, wristers, women and in- fants' shirts	Thomas Dalby.
1858	1879	Gloves, jackets, and silk and woollen mittens	John and Mark Lee.
1860	1879	Rubber boot and glove linings, and fancy knit woollens	James Draper.
1860	-	Children's hose	Alexander Lynes.

INK, MUCILAGE, AND PASTE.

1856	1863	Printing ink, lamp black, dry colors, and varnish	William C. Donald and E. Everson.
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Names of Founders — Continued.

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1823	—	Horn goods	Sidney Harris.
1843	1843	Combs	Harrison G. and Thomas M. Chace.
1846	1846	Combs	S. C. Noyes.
1847	—	Corset, feather, and whip bone	James A. Sevey.
1854	1858	Combs	Benjamin Edwards, Lucian A. Emery, John Carr, and G. F. H. Brown.

JEWELRY BURNISHING AND LAPIDARY WORK.

1860	1883	Diamond polishing	Henry D. Morse.
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LEATHER.

1690	1872	Leather (calfskins)	A. Torrey.
1775	1882	Pebble goat, straight goat, and brushed kid	Thomas Carroll.
1782	1882	Russet leather and splits	James Brown.
1800	1849	Wax and kip leather	Mark and Moses Sanborn.
1800	1876	Leather	Not known.
1800	1881	Card leather	Samuel Warren.
1800	1882	Pulled wool and morocco leather	William Sutton.
1800	1885	Tanning	Ward and Fitch Poole.
1810	1869	Upper leather and splits	Jacob Putnam.
1812	1873	Belt, grain, and wax leather and splits	Nymphus Pratt.
1819	1840	Tanning	N. W. Osgood.
1828	1864	Kip and split leather	Franklin Osborn.
1829	1829	Wax leather, splits, and inner soling	L. B. Harrington.
1830	1869	Grain and card leather and rough splits	Charles Taylor and Pliny Wells.
1830	1876	Russet leather and rough splits	— Olds.
1832	1874	Split leather	Miles and Kendall Osborn.
1835	1867	Leather	Elisha Morse.
1835	1869	Finishing skins	Benjamin Kimball.
1835	1872	Leather, splits, and inner soling	Daniel C. Haskell.
1835	1879	Straw and leather-board	Ephraim and John Cushman.
1835	1880	Harnesses, saddles, and trunks	John B. Baker.
1835	1884	Tanning	William Maloon.
1836	1836	Leather and splits	William Kenney.
1836	1870	Grain and split leather	Abijah Thompson.
1836	1870	Kid skins	Joseph Moulton.
1836	1884	Kip leather, tanning, and currying	P. R. Southwick.
1837	1854	Tanning	Charles Weston.
1838	1833	Leather	Richard Smith.
1841	1860	Leather (calfskins)	B. T. Thompson.
1842	1861	Bag leather and splits	Friend H. Burt.
1842	1879	Rough and finished splits, grain, patent, and enamelled leather	Linus B. Comins.
1843	1865	Leather (sheepskins)	Philip P. Tapley.
1844	1875	Morocco	J. W. Blaney and J. B. Souther.
1845	1845	Curried and tanned leather and splits	John Gibney.
1845	1865	Leather belting	Josiah Gates.
1845	1880	Upper leather splits	Warren Fox.
1845	—	Leather	Albert Wilkins.
1845	—	Hides	Joseph F. Walden.
1845	—	Finished grain leather and splits	John R. Dufer. In 1865, — Farwell.
1846	—	Curried leather and splits	H. Tebbits.
1847	1850	Goat and kid leather	Thomas Roberts, C. E. York, George K. and Henry A. Pevear.
1847	1875	Leather belting, etc.	N. Hunt.
1848	1848	Leather	James A. Lord.
1848	1848	Tanning	D. W. Osborn.
1848	1878	Leather (goatskins)	Andrew Kely and Richard W. Drown.
1849	1849	Leather	John Culliton.

Names of Founders — Continued.

LEATHER — Concluded.

Date of Establishment	Year in which the Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1849	1849	Wax leather and splits . . .	Reuben G. Nelson and Alexander B. Merrill.
1850	1850	Leather (goatskins) . . .	Patrick Lennox.
1850	1860	Leather . . .	Hugh Conway.
1851	1872	Leather belting . . .	T. K. Earle & Co.
1851	1872	Morocco . . .	Charles G. Clark.
1851	1879	Leather . . .	James Riley.
1852	1865	Kid and pebble goat . . .	William A. Kelley.
1852	1869	Leather (calfskins) . . .	John Bacon.
1853	1853	Sheep leather . . .	Lyman Smith.
1853	1853	Leather . . .	James Braden.
1853	1866	Leather . . .	John P. Crane.
1854	1863	Leather . . .	Luther Fernald.
1854	1884	Leather (sheepskins) . . .	W. P. Clark.
1854	-	Leather (calfskins) . . .	William Muller.
1855	1855	Brushed India sheep kid, glazed India sheep kid, and pebble India goat . . .	Shute & Faulkner.
1855	1869	Calf and morocco . . .	A. B. Martin.
1856	1879	Buff and split leather . . .	E. N. Blake and Charles Tidd.
1856	1879	Glove grain leather, imitation goat leather, and split leather . . .	Lewis Shaw.
1857	1857	Harnesses . . .	J. Smith & Co.
1857	1879	Leather belting, loom straps, and worsted aprons . . .	Whitmarsh & Adams.
1858	1858	Patent and russet leather, split leather or rough splits . . .	Bernard and Andrew Foley.
1858	1860	Grain leather finished . . .	McDonough & Harrington.
1858	1884	Morocco . . .	B. F. Clements.
1859	1859	Wax leather, splits, and inner soling . . .	Bond & Hamlen.
1859	1868	Leather . . .	Thomas Looby. In 1868 by Patrick D. Egan.
1859	1878	Imitation goat and pebble grain . . .	J. O. Cummings.
1859	1880	Grain leather . . .	Gill & Walker.
1859	1880	Wax leather and flesh splits . . .	Nathaniel Horton.
1859	1884	Wax, kip, and split leather . . .	Brooks & Messer.
1860	1876	Buff and split leather . . .	Linnell, Cummings, & Co.
1860	1876	Morocco finishing . . .	A. A. Bates.
1860	1883	Curried splits . . .	Timothy O'Shea.
1860	-	Belt leather . . .	Thomas B. Adams.

LINEN.

1835	1864	Yarn, thread, and twine . . .	John Smith, John Dove, and Peter Smith, known as Smith, Dove, & Co.
1846	1867	Crash towelling . . .	Henry H. Stevens.

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

1859	1867	Ginger ale and mineral water . . .	G. D. Dows.
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LIQUORS: MALT, DISTILLED, AND FERMENTED.

1780	1881	Rye and gin . . .	Capt. John Porter.
1790	1858	New England rum . . .	Alexander Caldwell.
1800	1880	New England rum . . .	Ezra Trull.
1810	1866	New England rum . . .	- Tufts.
1810	1871	Ale and porter . . .	Gould, Cooper, and Robbins.
1812	1882	Bottled wine, spirits, etc. . .	J. D. & M. Williams.
1828	1865	Ales . . .	A corporation.
1839	1875	Rum . . .	Luther Felton.

Names of Founders — Continued.

LIQUORS: MALT, DISTILLED, AND FERMENTED — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1844	1882	Carbonated beverages and bottling malt liquors	Boyd & Beard.
1846	1846	Lager beer	John Roessle.
1848	1870	Rum, brandy, whiskey, etc.	P. Dempsey.
1850	-	Lager beer and ale	Gottlieb F. Burkhardt.
1851	-	Bottled ale, porter, and lager beer	Stephen C. Heald.
1854	1872	Refined cider	Jonathan Holbrook.
1856	1873	Rum	Daniel R. Sortwell.
1857	-	Lager beer	Henry and Jacob Pfaff.
1858	1865	Bottled ale, lager, cider, porter, etc.	Fleming & Laughton.
1858	1873	Ale, porter, and old stock ale	George Habich.
1860	1860	Bottled Bass' ale, lager beer, soda, ginger ale, etc.	George F. Hewitt.
1860	-	Bottled liquors, alcohol, etc.	Chester H. Graves.

LUMBER.

1760	-	Lumber and cider	Not known.
1828	1865	Mahogany lumber	Stephen and Henry Cutter.
1833	1875	Mahogany lumber and veneer	Harrison Parker.
1837	-	Pine and spruce boards, mouldings, etc.	Cook Borden and — Coggshall.
1845	1883	Planing and jobbing	Decreet, Boyington, & Co.
1847	1884	Mouldings, window and door frames, and dressed lumber	Granger & Bartlett.
1850	-	Lumber and cider	Silas Rice.
1856	1865	Railroad lumber, planks, timber, etc.	A. & E. D. Batcheller.
1858	1858	Lumber	Raymond J. Walker.
1860	1870	Lumber	Amos S. Reed.

MACHINES AND MACHINERY.

1786	1880	Card-clothing, etc.	P. Earle.
1819	1868	Card-clothing	Joseph B. Sargent, 1819. Cheney Hatch, 1823. United by White & Denny, 1836. A. White & Son since 1868.
1824	1845	Cotton and paper machinery, cards, railway heads, looms, etc.	A corporation.
1826	1840	Card-clothing	J. Southgate & Co.
1828	1834	Lathes, planers, sewing-machines, bicycles, etc.	N. P. & J. T. Ames.
1828	1882	Card-clothing	Conklin, Woodcock, & Co.
1830	1869	Machine knives, die stock, shear blades, and strips	Moses Clements.
1830	1870	Cards, railway heads, spoolers, reels, etc.	P. Whitin & Sons.
1831	1863	Cloth finishing and wool preparing machinery	Albert Curtis.
1831	1882	Cards, railway heads, looms, fly frames, etc.	Otis Pettee.
1833	1870	Power loom shuttles	J. S. Jaques.
1833	1877	Cotton gins and cotton gin feeders and condensers	Bates, Hyde, & Co.
1836	1858	Machinists' tools, water wheels, engines, tools, etc.	I. & S. W. Putnam.
1836	1883	Castings, card-clothing, and shafting	George H. Gilbert and Parker Richardson.
1836	1884	Machinery and elevators	Henry Sibley.
1837	1859	Steam boilers and engines	S. E. Chubbuck.
1840	1848	Card-clothing	Murdock & Southgate.
1840	1867	Paper machinery	Howe & Goddard.
1840	1873	Woollen machinery, mill and water wheel work	Rodney Hunt.

Names of Founders—Continued.

MACHINES AND MACHINERY—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1840	1874	Loom harnesses and reeds . . .	James Patterson.
1840	1880	Locomotives and other engines . .	Holmes Hinkley.
1840	—	Machinery	Baxter D. Whitney.
1842	1865	Hand cards and heddles	L. S. Watson.
1842	1871	Radiators, steam valves, water stops, tools, etc.	James J. Walworth and Joseph Nason.
1842	1873	Cotton machinery, printing presses, and locomotives	William Mason.
1842	1885	Soda-water apparatus and bottling machinery	A. D. Puffer.
1843	1878	Shuttles	Litchfield Brothers.
1844	1855	Machine knives	Hankey, Stiles, & Co.
1844	1860	Top rolls	D. H. Wetherell.
1844	1868	Looms, shafting, castings, pulleys, etc.	E. C. Kilburn and J. T. Lincoln.
1845	1849	Light machinery and engine repair- ing	Sargent & Smith.
1845	1867	Card-clothing	Everett Stetson.
1845	1874	Boilers, engines, and elevators . .	Campbell & Chubbuck.
1846	1881	Steam excavators	John Souther.
1847	1847	Locomotives and machinery . . .	A corporation.
1848	1852	Machinery, elevators, shafting, pul- leys, engines, etc.	George T. McLauthlin.
1848	1883	Engine lathes, iron planers, and drill presses	Samuel Flagg.
1849	1849	Woodworking machinery	G. N. Goodspeed.
1850	1860	Punching presses	Charles Cleaves.
1850	1880	Machinery	Clark & Chapman.
1851	1875	Boilers and machinery	Goddard & Rice.
1852	1875	Carpet looms and spinning mules .	J. B. Parker.
1852	1879	Steam, pin, and reed radiators, steam boilers, castings, etc. . . .	Henry B. and Edwin Smith.
1853	1853	Steam boilers, tanks, etc.	Thomas Cunningham.
		Tug boats, engines, condensers, steam launches, boilers, tanks, etc.	Abishai Miller, Mark Googins, Oliver Edwards, Gilman Joslin, William C. Hibbard, and James L. May- nard.
1854	1854	Steam gauges and safety valves . .	William P. Newell, H. K. Moore, S. T. Sanborn, and others.
1854	1882	Spreader chains, rope machines, spreaders, twistors, etc.	Mower & Woodworth.
1854	1883	Shafting, pulleys, bolts, engine gov- ernors, and repairing	Williams & Wilson.
1854	—	Curriers', dyewood, and lumber ma- chinery	Hill & Proctor.
1855	1880	Wool-washing machines and burr pickers	Charles G. Sargent.
1856	1856	Millwrighting and rag engines . .	E. D. Jones.
1856	1867	Cotton machinery	E. D. & George Draper and J. B. Bancroft.
1856	1874	Cotton openers and lappers . . .	Richard Kitson.
1856	1874	Boilers, tanks, steam plates, pen- stock, etc.	Stephen Ashton.
1858	1884	Ship steerers, drive-well points, pumps, etc.	D. A. Taylor.
1858	—	Machinery, engines, lathes, planes, etc.	F. S. Perkins.
1859	1865	Bobbins and spools	Watson, Parker, & Nichols.
1859	—	Shoe, tack, and nail machinery . .	Kimball & Merritt.
1860	1860	Boilers and radiators	Ingalls & Kendricken.
1860	1864	Engines, machinery, boilers, tanks, etc.	Kendall & Davis.
1860	1867	Machinists' tools	A. F. & V. F. Prentice.
1860	1872	Woollen machinery, cloth dryers, yarn dressers, reels, etc.	E. C. Cleveland.
1860	1872	Sugar, salt, and soap machinery .	Walter E. Hawes and Charles H. Her- sey. In 1872, C. H. & F. C. Hersey, known as Hersey Brothers.

Names of Founders—Continued.

METALS AND METALLIC GOODS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1787 1793	1855 1870	Merchant iron castings and hardware Tin and copper ware, stoves, steam and gas piping, general repairing, and tin roofing	Leonard & Kinsley.
1800	1828	Sheet and bar copper and yellow metal	C. B. Le Bosquet. Paul Revere & Son and James Davis & Son.
1800	1858	Nails and American and Swedes tack plate	Not known.
1800	1859	Castings	Gen. Leach.
1810	-	Iron and brass tacks and nails	Benjamin Hobart.
1813	1854	Blacksmithing	Daniel Safford.
1817	1865	Printing type	Not known.
1820	1865	Nails, American iron tack plate, rolling Swedes tack plate	N. Russell & Co.
1820	1883	Tinware and stoves	N. Frothingham, Jr.
1821	1881	Nails and bar iron	Richard Borden and associates.
1822	1855	Nails and tack plate	Albert Field and J. M. Leonard.
1824	1840	Silver and gold plated goods	Isaac Babbitt and William W. Crossman.
1825	1831	Sheet copper, yellow metal sheathing, and bath boilers	Crocker Brothers.
1825	1865	Iron castings	William A. Wheeler.
1827	1869	Tacks and nails	Albert Field. In 1860, Albert Field & Son. In 1869, Albert Field Tack Co.
1827	1883	Castings and machinery	Cyrus Alger.
1829	1848	Pig iron	Gates, Pettee, & Co.
1829	1879	Lead pipe, sheet lead, white lead, red lead, and litharge	Boston Lead Co.
1830	1844	Rivets and burrs	T. Allen.
1830	1855	Tin and sheet iron ware and copper	David Dana.
1831	1868	Iron, steel, and copper wire	I. Washburn.
1833	1855	White metal, sheet iron and brass ware, and hardware	Enoch Robinson and Francis Draper. In 1837, Francis Draper. In 1855, F. Draper & Co.
1834	1857	Copper tanks, brass faucets, copper pipes, and brass and copper work	H. Strater.
1834	1873	Table knives	John Russell.
1835	1884	Silverware	John Farrington and George W. Hunsnewell.
1836	1837	Nails and spikes	Jacob Perkins, Gad Robinson, and Nahum Stetson. In 1837, incorporated as the Weymouth Iron Co.
1836	1863	Castings	Albert Bisbee and James Endicott.
1836	1866	Cut nails	N. Murdock.
1836	-	Cornices, tin roofing, and jobbing	S. G. Mack & Co.
1837	1849	Malleable iron castings	Lincoln Drake.
1837	1859	Tacks	Samuel Salmond.
1837	1864	Cut nails, tack plate, and charcoal facing blooms	Keith Iron Co.
1837	1864	Hose couplings and pipes, soda-water apparatus, and submarine armor	Morse & Fletcher.
1837	1884	Platform and counter scales	Woods & Nute.
1839	1839	Door locks and knobs and furniture handles	Enoch Robinson.
1839	1877	Shears, scissors, and sheep shears	Herman Wendt.
1840	1856	Castings	Russell & Walker.
1840	1865	Spikes	Not known.
1840	1867	Type	Samuel N. Dickinson.
1840	1867	Iron castings, bridges, boilers, roofs, building fronts, and water stand-pipes	D. L. Harris and Amasa Stone.
1841	1866	Iron castings and jobbing work	Hittinger & Cook.
1841	1879	Copper work, gutters, bay windows, etc.	Rice, Jenkins, & Beal from 1841-1843. Rice & Jenkins from 1843-1849. W. D. Rice from 1849-1854. Rice, Hicks, & Badger from 1854-1855. Hicks & Badger from 1855-1879. E. B. Badger & Son in 1879.

Names of Founders — Continued.

METALS AND METALLIC GOODS — Continued.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1842	1842	Rivets	Samuel Loring.
1842	1865	Iron castings, shafting, and friction pulleys	James Hunter.
1842	1873	Guard railing, iron wire cloth, dandy rolls, and Fourdrinier wire	Cheney Bigelow.
1842	1880	Castings and general metal work	George W. Smith.
1843	1843	Iron work	H. C. Fish.
1843	1876	Iron pipe, pipe castings, machinery castings, and wrought iron work	Reuben Davis.
1843	1880	Iron castings	Hawes, Manel, & Davol.
1843	1884	Jewelry	Henry Guild.
1844	1844	Blacksmithing, plumbing, etc.	Henry V. Davis.
1844	1851	Common and fine table cutlery	Nathaniel and E. G. Lamson and A. F. Goodnow.
1844	1882	Jewelry	Bacon, Mason, & Hodges.
1845	1884	Plumbers and steam fitters' brass work	Hayden & Saunders.
1846	1846	Castings	Taber & Grinnell.
1846	1846	Tacks and shoe nails	D. B. Gurney.
1847	1855	Bolts, nuts, and washers	George C. Smith and James Meadowcroft.
1847	1864	Pig iron	Briggs Iron Co.
1847	1874	Iron castings	Moulton & May.
1847	1881	Castings	Gilman M. Palmer.
1848	1848	Rivets and burrs	Benjamin Cobb and William R. Drew. In 1848, Cobb & Drew.
1848	1848	Hoop and band iron, rods, nails, and chains	A corporation.
1848	1868	Brass faucets	Erastus Stebbins.
1849	1849	Copper work, etc.	S. D. Hicks.
1849	1874	Wire cloth	— Greenleaf.
1849	1876	Iron and Bessemer steel wire	Myrick & Sugden.
1849	1870	Jewelry and novelty goods	F. G. Whiting.
1850	1850	Iron castings	Alonzo Josselyn.
1850	1865	Iron and brass castings, Babbitt metal, foundry work, etc.	D. H. Hill.
1850	1885	Malleable iron castings	Wood & McFarland.
1850	1885	Saws	Enoch R. Morse.
1851	1851	Tubes	H. Hinckley, D. F. Child, Joseph Cotton, Joseph H. Cotton, and William E. Coffing.
1851	1864	Brass, copper, and iron wire cloth, coal screen sieves, bank and office railing, window guards, and screens	Charles A. Morse.
1852	1856	Gold plated jewelry	H. F. Barrows.
1852	1875	Tinned mattress wire	Horace Lamb.
1852	1880	House plumbing, kitchen tinware, and repairing	John Feeley.
1852	-	Tinsmithing and plumbing	J. W. Jordan.
1853	1871	Iron castings	Spencer Fuller and Isaac Colburn.
1853	1874	Tacks, brads, and shoe nails	Edward Y. Perry, Ezra Phillips, and Martin W. Stetson.
1853	1874	Castings, machine patterns, and general foundry work	Bennett, Jocelyn, & Knowles.
1853	1877	Machinery castings for lathes, boilers, engines, fly wheels, etc.	Page, Davis, & Co.
1853	1877	Iron castings	James Gurney and Edwin Dyer.
1853	-	Blacksmithing and carriage building	Daniel McGregor.
1854	1854	Bolts, nuts, and washers	Thomas Smith & Co.
1854	1854	Rivets, burrs, and wire nails	A corporation.
1854	1854	Lead	Abner B. Packard.
1854	1854	Hinges, washers, and picture cord	E. W. Gilmore & Co.
1854	1854	Sulphate of copper, and gold refining	C. E. W. Sherman.
1854	1882	Spring steel, Norway shapes, refined iron, and boiler plate	Naylor & Co.
1855	1855	Jewelry	Charles E. Hayward and Jonathan A. Briggs.
1855	1869	Furnaces, stoves, copper gutters, stove boilers, etc.	John D. Eaton and Joshua Winslow.

Names of Founders—Continued.

METALS AND METALLIC GOODS—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1855	1882	Sterling silver and silver-plated tableware and cases for same	Not known.
1855	1883	Job work for railroads and machine shops	James P. Ingols and Aristides Talbot.
1855	1883	German silverware	A. F. Towle & Co.
1856	1856	Gold leaf	Charles P. Lauriat.
1856	1856	Tin cans	I. W. Hunnewell and F. W. Creamer.
1856	1856	Wire cloth and nettings	E. B. & H. N. Bigelow and J. C. Hoadley.
1857	1857	Steel rails, etc.	A corporation.
1857	1857	Stoves and funnels	R. W. Shattuck.
1857	1871	Wire	George W. Prentiss.
1857	1884	Jewelry	Everett Dean & Co.
1859	1859	Iron castings	Danville Cole and Albert F. Nichols.
1859	1859	Iron work	L. M. Ham & Co.
1859	1878	Horse nails	S. S. Putnam and H. L. Packer.
1859	1885	Jewelry	C. H. & A. W. Sturdy.
1859	-	Jewelry and novelties	V. H. Blackinton.
1860	1860	Copper in sheets and circles, bolts, yellow metal sheathing, nails, and plates	New Bedford Copper Co.
1860	1867	Blacksmithing	Plouf & Dennis.
1860	1869	Tin and copper ware, stoves, nickel-plated and silver-plated ware, and brass goods	Horton & Bingham.
1860	1878	Watch cases and bracelets	J. M. Bates.
1860	1880	Tacks, brads, nails, etc.	L. C. Waterman.
1860	1885	Repairing and jobbing	William G. Hayden.
1860	-	Electroplated jewelry	W. A. Sturdy.

MIXED TEXTILES.

1825	1876	Felt and wool wadding	Robert Bacon.
1835	1886	Cotton warp and wool Shaker flannel, cotton warp flannel, and domett	Calvin C. Damon.
1841	1880	Wiping and packing waste	John Olmsted.
1860	1865	Felt	M. A. Johnson.

MUSICAL INSTRUMENTS AND MATERIALS.

1823	1853	Pianos	Jonas Chickering.
1827	1870	Church organs	Elias and George G. Hook.
1833	1833	Pianos	William Cumston.
1837	1874	Square and upright pianos	William Bourne.
1840	1883	Brass instruments	D. C. Hall.
1841	1860	Musical instruments	E. G. Wright.
1843	1843	Pianos	Isaac Woodward and John P. Brown.
1843	1880	Pianos	George H. Davis.
1844	1874	Church organs	William A. Johnson. Firm name of Johnson & Son adopted in 1874.
1847	1847	Organ pipes	Samuel Pierce.
1847	1865	Piano cases	Church & Lane.
1849	1879	Pianos	William P. Emerson.
1849	-	Piano legs, etc.	C. N. Stimpson.
1850	1859	Piano and organ hardware, etc.	R. J. Byram and O. J. Faxon.
1850	-	Organs and organ actions	E. B. Carpenter.
1851	1871	Pianos	James W. Vose.
1851	1884	Piano cases, etc.	J. E. Stone.
1851	-	Piano cases	John H. Lockey.
1852	1870	Organs, etc.	S. D. & H. W. Smith.
1853	1853	Piano keyboards, actions, and hammers, and organ keyboards	S. Tower.

Names of Founders — Continued.

MUSICAL INSTRUMENTS AND MATERIALS — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1853	1872	Organ reeds and reed boards, octave couplers, etc.	A. H. Hammond.
1854	1882	Reed organs and upright pianos	Henry Mason and Emmons Hamlin.
1857	1857	Square and upright pianos	A. M. McPhail.
1859	1859	Pianos	James B. Barry.
1860	1860	Church organs	S. S. Hamill.

OILS AND ILLUMINATING FLUIDS.

1829	1829	Sperm and whale pils, sperm candles, etc.	W. A. Robinson & Co.
1850	1860	Oils	George J. Tarr.
1851	1885	Candles and refined oil	Charles H. Leonard.
1855	1855	Refined oil, naphtha, residuum, grease, etc.	Not known.
1856	1860	Oils, naphtha, and wax	Samuel Downer.
1856	1867	Sperm oil, spermaceti, oil soap, etc.	Sylvanus Thomas & Co.
1859	1875	Wool, burning, and lubricating oils	A. C. Masury.

PAINTS, COLORS, AND CRUDE CHEMICALS.

1834		Paints, colors, and dyestuffs	E. & F. King.
1837	1867	Colors	Henry Wood.
1840	1875	Putty, mixed paints, and colors	B. M. Clark & Co.
1852	1852	Paints, varnish, and japan	A corporation.

PAPER AND PAPER GOODS.

-	1858	Rope paper	Not known.
1770	1853	Press-board	John Ware and Moses Grant owned it at an early date.
1775	1883	Manila paper	Moses Goodhue.
1790	-	Newspaper	— Ware. Owned and conducted for years by Thomas Rice.
1798	-	Books	Benjamin Loring.
1800	1880	Paper	Not known.
1801	1842	Bank, cloth, bond, parchment, and writing paper	Zenas Crane.
1801	1873	Ledger and writing paper	Henry Wiswell, Zenas Crane, and Harry Willard.
1805	1860	Blankbooks, pads, etc.	Josiah Loring.
1809	1809	Book paper	Not known.
1809	1809	Book paper	Not known.
1809	1809	Book paper	Not known.
1818	1867	Fine writing paper	Luman Church.
1822	1862	Fine writing paper	Owen & Hurlbut.
1822	1864	Writing paper	Owen & Hurlbut.
1832	1864	Ledger and record paper	H. Chamberlin.
1832	1876	Manila and carpet-lining paper	Ellis, Day, & Co.
1835	1864	Paper for glazing and hanging	Not known.
1835	1865	Manila and news paper	Elizur Smith and George W. Platner.
1835	1868	Roofing and asbestos paper	John and Stephen Roberts.
1836	1850	Blank books	Thomas Groom.
1836	1854	Collar, blotting, and chromo paper, and cardboard	Benton & Garfield.
1837	1840	Writing paper	Ingersoll & May.
1838	1882	Wrapping paper	F. W. Bird.
1839	1870	Writing paper	Not known.
1840	1882	Wrapping paper	Mark Hollingsworth.
1844	1844	Paper	Franklin Wyman.

Names of Founders—Continued.

PAPER AND PAPER GOODS—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1844	1878	Tags, labels, paper boxes, card-board, etc.	E. W. Dennison.
1846	—	Envelopes	L. Hawes.
1847	1860	Blank books	Aaron R. Gay.
1847	1875	Paper	George and Thomas Campbell. G. Campbell, on the death of T. Campbell, took the mill in 1875.
1848	1848	Flat and folded paper	Joseph Carew, F. M. Carew, and James B. Rumril.
1849	1873	Ledger paper	L. L. Brown, Daniel Jenks, and William Jenks.
1850	1853	Book, news, and card paper	Alvah Crocker and G. S. Burbank.
1850	1856	Coarse and packing paper	C. M. Lincoln and L. Lincoln.
1850	1877	Hanging paper	William West.
1853	1853	White and colored paper	J. C. Parsons and others.
1853	1864	News, blotting, and book paper	William Russell & Son.
1853	1882	Writing paper	Greenleaf & Taylor Manufacturing Co. Name adopted in 1875, but the Chester Paper Co. was not incorporated until 1882.
1854	1867	Flat writing paper	L. Phinney & Co.
1856	1856	Paper for glazing and hanging	Bulkeley, Duntou, & Co.
1857	1857	Writing paper	Holyoke Paper Co.
1858	1858	Flat writing paper	Chapin & Gould.
1860	1860	Paper	George L. Wright.
1860	1877	Sheathing paper	William Hill.

PERFUMES, TOILET ARTICLES, ETC.

1855	1882	Extracts and perfumery	Joseph Burnett.
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PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

1851	1873	Photographs	Allen & Rowell.
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POLISHES AND DRESSING.

1825	1883	Varnish, shellac, japan, etc.	Silas Burbank.
1832	1876	Varnish and japan	A. G. Stimson.
1832	1877	Varnish, etc.	Not known.
1837	1874	Blacking, colors, paste, etc.	Henry Wood.
1844	1851	Crucibles	Charles R. Atwood.
1852	1868	Ink and leather dressing	C. L. Hauthaway.
1852	1872	Polishes, dressing, etc.	D. Whittemore.
1855	1855	Blacking	B. F. Brown.
1858	1858	Varnish, polish, and japan	G. H. Shaw.
1860	—	Stove polish	Not known.

PRINTING, PUBLISHING, AND BOOKBINDING.

1689	1847	Book publishing and job printing	Not known.
1793	1856	Publishing newspapers and job work	Edmund M. Blunt and Angier March.
1795	1871	Publishing newspapers	William H. Huse & Co. in 1856.
1800	1883	Publishing books	In 1824, Joseph T. Buckingham.
1807	1876	Publishing books	Not known.
1813	1868	Publishing newspapers	Benjamin Lindsey.
1813	1883	Publishing newspapers	William W. Clapp, Sr.
			Nathan Hall.

Names of Founders—Continued.

PRINTING, PUBLISHING, AND BOOKBINDING—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1816	1867	Publishing newspapers	Nathaniel Willis.
1823	1859	Job printing	Theophilus K. Marvin.
1823	-	Publishing newspapers	Not known.
1824	1867	Publishing newspapers	— Knowlton.
1824	1873	Publishing newspapers	Samuel Bowles.
1825	1858	Publishing newspapers	Badger & Porter.
1827	1827	Publishing newspapers	Nathaniel Willis.
1830	1830	Binding and publishing books .	Little, Brown, & Co.
1830	1854	Job printing	Alfred Mudge.
1830	1871	Lithographic printing	John H. Bufford.
1830	1879	Publishing newspapers	Lynde M. Walter and Dutton & Wentworth.
1831	1876	Publishing newspapers	Charles G. Green.
1833	1857	Publishing newspapers	Ford & Damrell.
1835	1875	Publishing newspapers	H. L. Devereux and Patrick Donahoe.
1836	1879	Publishing books and job printing .	Albert J. Wright.
1836	-	Bookbinding	Benjamin Bradley.
1837	1885	Publishing newspapers	Otis Brewer.
1840	1876	Publishing books	Patrick Donahoe.
1840	-	Publishing newspapers	William Buckminster.
1841	1885	Publishing newspapers and job printing	Samuel J. Varney.
1841	-	Job printing	James E. Farwell and John P. Upton.
1843	-	Publishing newspapers and job printing	Larned, Haven, & Co.
1844	1860	Publishing books	C. A. Hack.
1844	1879	Job printing	Samuel C. Nash.
1844	1879	Publishing newspapers	Eliakim Littell.
1845	1882	Publishing newspapers and job printing	Thomas Almy and John C. Milne.
1846	1885	Directories	George Adams.
1846	-	Publishing newspapers	Not known.
1847	1868	Bookbinding	J. H. Abbott.
1849	1880	Publishing and binding books and lithographing	H. O. Houghton.
1850	1855	Artotype engravings	Charles Taber. In 1855, Charles Taber & Co.
1850	1863	Job printing	Prentiss & Sawyer.
1850	1867	Publishing newspapers	Edmund Anthony.
1850	1873	Bookbinding	Edwin Dresser & Co.
1851	1851	Job printing	Charles Hamilton.
1851	-	Publishing newspapers	Moses A. Dow.
1852	1884	Job printing	Daniel Gunn.
1853	1866	Bookbinding	Ira Bradley.
1854	1866	Publishing periodicals and books .	An association of ministers.
1855	1882	Job printing	W. L. Deland.
1855	1883	Bookbinding	Edwin Fleming.
1855	-	Publishing newspapers and job printing	A corporation.
1856	1862	Bookbinding	D. Macdonald.
1856	1882	Publishing newspapers and job printing	John A. Goodwin.
1857	1873	Newspapers, bound books, and pamphlets	Not known.
1857	1878	Publishing music	Oliver Ditson & Co.
1858	1860	Bookbinding	Henry G. Terry and John H. Leeds.
1858	1878	Job printing, etc.	W. F. Brown.
1859	1866	Publishing newspapers	Curtis Guild.
1860	1860	Fine art publications	Louis Prang.
1860	1871	Bookbinding	Sanborn & Parker.

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

-	1813	Sheeting, shirting, drill, and duck .	A corporation.
1804	1840	Garments dyed and cleansed . . .	William Barrett.
1812	1876	Dyeing and bleaching	Samuel Slater.

Names of Founders—Continued.

PRINT WORKS, DYE WORKS, AND BLEACHERIES—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1821	1821	Print and cotton cloths, yarn, and twine	Kirk Boott, John W. Boott, Nathan Appleton, P. T. Jackson, Paul Moody, and associates.
1829	1874	Print cloth	Caleb B. Turner.
1830	—	Dyeing and cleansing	John McGarvey and A. Lewando.
1831	—	Dyeing cotton and woollen cloth	Not known.
1833	1833	Bleaching, finishing, and dyeing cotton cloth	Jonathan Derby, John Avery, John Clark, A. H. Fiske, and others.
1834	1880	Print cloth	Holder Borden, Jefferson Borden, Bradford Durfee, and associates.
1835	1835	Cotton yarn	Smith Gray.
1836	1836	Skein yarn	Not known.
1840	—	Dyeing and laundry work	Stephen Sibley.
1845	1845	Drill, duck, cotton flannel, cambric, and yarn	Not known.
1852	1853	Cotton dress goods and dyeing	A corporation.

RAILROAD CONSTRUCTION.

1832	1883	Railroad cars manufactured and repaired	Osgood Bradley.
1840	1879	Dump and box cars and repairing cars	Isaac Keith.
1845	1845	Cars repaired, etc.	Not known.
1845	1845	Cars repaired, etc.	Not known.
1845	1845	Repairing locomotives and cars. Gates for railroad crossings	A corporation.
1845	1862	Railway cars and materials	Thomas W. and Charles Wason.
1849	1854	Car axles	Wright & Co.

RUBBER AND ELASTIC GOODS.

1828	1845	Hose, belting, packing, tubing, etc.	John Haskins and others.
1837	1849	Rubber goods	Aaron Hale.
1853	1855	Boots and arctics	A corporation.

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

1833	1869	Spectacles and eyeglasses	William Beecher.
1845	1880	Photographic apparatus	John Sawyer & Co.
1854	1884	Gold, silver, and steel spectacles, eyeglasses, and thimbles	S. D. Burbank.
1855	1865	Physical instruments and mariners' compasses	E. S. Ritchie.
1853	1861	Atomizers, surgical and dental instruments, and trusses	Codman & Shurtleff.
1859	1859	Trusses, supporters, shoulder braces, and elastic hose	Charles W. White.

SHIPBUILDING.

*1820	1877	Sails	Henry Hutchinson.
1833	1877	Ship sails	Simpson Hart.
1837	1868	Masts and spars	H. Pigeon.
1840	1885	Tackle blocks	Samuel Loud and Elijah Bagnall.

Names of Founders — Continued.

SHIPBUILDING — Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1841	1876	Yachts, sloops, schooners, ships, steamers, and other vessels . . .	Daniel D. Kelly.
1846	—	Masts and spars	George E. Young.
1847	1867	Shipsmithing	Nason & Cleveland.
1852	1865	Sails	George Matthew.
1854	1872	Ships, barks, brigs, and schooners .	Foster & Leighton.
1854	1873	Schooners, sloops, and steamers .	F. Chandler and C. A. Cousens.
1857	—	Rigging	Albert B. Low.
1860	1860	Sails	John H. McManus & Co.

SILK AND SILK GOODS.

1838	1858	Spool and sewing silk	Joseph Whitmarsh.
1840	1880	Silk and twist	V. J. Messinger.
1848	1877	Silk, thread, etc.	J. Warner.
1849	1881	Woven goods	William Skinner.

SPORTING AND ATHLETIC GOODS.

1823	—	Fishing rods and tackle	Amos Stevens.
1856	1871	Ice and roller skates	S. C. & S. Winslow.
1858	—	Base balls, tennis sets, etc. . . .	H. Harwood, Sr.
1860	1882	Fishing rods	H. Gray & Son.

STONE.

1820	1880	Rough granite and granite monuments	— Flanders.
1825	1847	Monuments, tombstones, and mantels	Charles Harlow.
1825	1873	Rough and hammered granite . . .	Eben Field.
1826	1826	Cut and rough granite and foundation stone	Thomas H. Perkins and others.
1834	1866	Finished and rough granite	H. Barker.
1839	1839	Finished and rough granite	Frederick & Field.
1839	1885	Cemetery, cut, building, and curbing stone, etc.	N. N. Flynt.
1840	1864	Paving blocks, foundation, cut, and rubble stone	Wetherbee, Page, & Torrey.
1842	1883	Monuments, tablets, and enclosures	Francis A. Brown. C. H. Weeks admitted as a partner in 1867. C. H. Weeks, 1870.
1844	1844	Prepared freestone for building . .	Edward F. Meany.
1845	1879	Foundation stone	A corporation.
1845	—	Monuments, tombstones, and marble work	A. Wentworth.
1846	1880	Finished granite	C. R. Mitchell.
1846	1882	Sandstone	A. M. Salisbury.
1848	1848	Finished and rough granite	C. H. Hardwick.
1850	1867	Marble work	Robinson & Power.
1852	1852	Sawed marble and polished granite	Everett Torrey, Charles Torrey, and Edwin Bowker.
1852	1883	Marble	Rice, Baird, & Heebner.
1854	1854	Monuments	O. M. Wentworth.
1854	1875	Monuments	McGrath & Mitchell.
1855	1873	Paving blocks, foundations, cellar, and edge stone, etc.	John Butman, Joshua Webster, and N. Giles.
1857	1871	Finished and rough granite	P. McDonnell.
1859	1859	Caps and sills, tombstones, underpinning, and trimmings	George W. Chandler.
1859	1859	Finished, rough, curbing, paving, and flag stone	A. G. Mann.

Names of Founders—Continued.

STRAW AND PALM LEAF GOODS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1835	1874	Women and children's straw hats	Davis Thayer, Jr.
1836	1858	Women and children's straw hats and bonnets	William Knowlton and William Legg.
1842	1874	Hats	Spencer Field; Jason Desper, 1845; Jason Desper & Co., 1870; Desper, Rogers, & Co., 1874.
1846	1872	Women and children's straw hats and bonnets	John Rogers.
1847	1870	Women and children's straw hats and bonnets	Franklin Manson.
1853	1868	Straw hats	Walter James.
1853	1876	Men, women, boys, and children's hats	O. & E. P. Carpenter.
1857	1884	Women's straw goods	J. T. D. Hersey, H. Hodges, Rufus F. Fay, and C. H. Merrick.
1858	1882	Straw hats	Albert Alden.
1860	1868	Straw and buckram hats, lace bonnets, buckram and rice net frames, and embroidered tidies	De Lisle Sheplie.
1860	1882	Straw and manila hats	Slocum & Spaulding.

TALLOW, CANDLES, SOAP, AND GREASE.

1816	1856	Hard and soft soap	Absalom Rand.
1828	1881	Glue, tallow, oil, etc.	Nahum Ward.
1828	-	Laundry, toilet, and soft soap	L. Beach, Sr.
1835	1874	Soap	Curtis Davis.
1837	1853	Refined spermaceti, sperm and wax candles, and lubricating sperm oil	Samuel Leonard, Sr.
1840	1872	Soap	James C. Davis.
1845	1845	Soap	Charles L. Jones.
1850	1883	Hard, scouring, and soft soap, bones, etc.	P. M. Jefferson.
1851	1871	Soap and bones	Cornelius Hargraves.
1852	1873	Soap, etc.	F. R. Robinson.
1853	1853	Soap, oil, etc.	Amos Sawyer.
1853	1880	Soap	T. T. Fiske.
1856	1863	Tallow, tallow oil, soap, etc.	John Reardon.

TOBACCO, SNUFF, AND CIGARS.

1812	1883	Cigars	Clark Brewer.
1852	1882	Cigars	Josiah Deane.

TOYS AND GAMES (CHILDREN'S).

1854	1854	Toy drums and tenpins, tooth picks, rolling hoops, etc.	Silas Nobb and J. P. Cooley.
1860	1884	Toys and games, lithographs, and kindergarten materials	Milton Bradley.

TRUNKS AND VALISES.

1840	1879	Trunks and bags	John G. Hadley.
1844	1872	Trunks, bags, etc.	H. A. Winslip.
1855	1883	Trunks, cases, and strapping	Josiah Cummings.

Names of Founders—Continued.
WHIPS, LASHES, AND STOCKS.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1855	1855	Whips	Hiram Harrison and others.
1857	1883	Whip ferrules and caps	J. P. Whipple.
1857	1884	Whips and lashes	G. S. Peck & Co. and C. M. Whipple & Co.
1858	1859	Whips and whip lashes	Shepard & Holcomb.

WOODEN GOODS.

1810	1875	Frames	John Doggett and Samuel S. Williams. Name adopted in 1859. Present firm organized in 1875.
1812	—	Lasts and boot trees	Samuel Cox.
1830	1873	Ladders	Elijah Spare.
1834	1862	Tubs and pails	Elisha Murdock.
1835	1876	Nail casks, heads, and staves . .	Lewis Kinney.
1840	1878	Mouldings	David Buffum.
1844	1858	Mouldings	Joseph F. Paul.
1845	1854	Mouldings, dressed lumber, etc., and planing and sawing	Phelps & Woodbury.
1847	1885	Wooden pails	Ephraim Kendall.
1848	1883	Pails, tubs, buckets, and zinc wash-boards	E. Murdock, Jr. and Sidney Fairbanks.
1850	1867	Baskets	L. B. Williams.
1850	1875	Mirrors and mirror frames . . .	Soule & Ward. John Soule and Joseph Ward.
1850	1875	Mouldings for picture frames, etc. .	Charles Schwamb.
1851	1851	Wood mouldings, planing, etc. . .	John A. Robertson.
1855	1865	Kegs and half barrels	Benjamin Fessenden.
1855	1871	Sawing, planing, etc.	Page & Littlefield.
1855	1881	Stairs, cutting boards, dinking blocks, doors, and sashes . . .	J. Otis Marshall.
1856	1872	Boot and shoe lasts	Samuel Mawhinney.
1858	1858	Tanks, lead kegs, oil casks, and barrels	Henry B. Hill.
1859	1872	Wood turnings and butter moulds .	James H. Perry.
1860	1860	Picture frames	H. N. Cass.
1860	1881	Frames	A. A. Childs & Co.

WOOLLEN GOODS.

—	1855	Flannel	Not known.
1804	1855	Dress goods	Ezekiel Hale.
1804	1875	Flannel	James Hale. E. J. M. Hale in 1837. Groveland Mill in 1875.
1810	1879	Satinet	Daniel Day.
1812	1857	Flannel and yarn	Leonard & Parmenter.
1812	1879	Dress goods	Abraham Marland.
1813	1872	Plain and twilled flannel	Silas Jewell and Joel Cranston. In 1849, Gleason & Dale. In 1853, B. W. Gleason & Co. In 1872, B. W. Gleason & Sons.
1813	1876	Flannel	Nathaniel Stevens.
1813	1878	Fancy cassimere	Joel Norcross, John Wyley, Charles Fay, and Horatio Lyon.
1813	1881	Cassimere, cloth, and cloaking . .	A corporation.
1814	1865	Woollen goods for men and women's wear	Samuel Slater.
1816	1879	Pulled wool and sheepskins . . .	Not known.
1822	1867	Indigo blue cloth	Town & Willis.
1822	1876	Fancy cassimere	Wells, Blackinton, & White.
1824	1846	Fancy cassimere	Luke Taft, George Wall, and — Aldrich.

Names of Founders—Concluded.

WOOLLEN GOODS—Concluded.

Date of Establishment	Year in which the Present Firm or Corporate Name was Adopted	DESCRIPTION OF GOODS MADE AND KINDS OF WORK DONE	NAMES OF FOUNDERS AND REMARKS
1825	1874	Woollen cloth	Isaac Damon.
1826	1826	Suitings, dress goods, car and carriage blankets	David Campbell, Jr., Henry Shaw, Thaddeus Clapp, and George W. Campbell.
1826	1870	Fancy cassimere	Joseph H. Perry & Co.
1828	1864	Flannel	William Sutton.
1828	1869	Satinet	Ridgeway Brothers.
1830	1830	Woollen goods	Samuel Lawrence, William W. Stone, and others.
1831	1861	Fancy cassimere, woollen goods, and broadcloth	Charles H. Plunkett.
1831	1872	Woollen yarn	Leonard and Alvah Morrison.
1833	1835	Cassimere	John and C. Barker.
1834	1867	Flannel	George Hodges, Joseph Kittredge, and Eben Sutton.
1835	1850	Fancy cassimere	Welcome Farnum.
1835	1882	Silk and fancy cassimere	A corporation.
1836	1836	Fancy union cassimere	J. C. & A. C. Russell.
1836	1865	White flannel	John Marland.
1840	1858	Worsted, woollen, and ingrain yarn	Not known.
1841	1872	White flannel	Gilbert & Stevens.
1843	1879	Flannel	Edward Franker.
1843	1882	Union cassimere	Lyman & Upham.
1843	1882	Union cassimere	Lyman & Upham.
1846	1882	White flannel	George Hodges.
1847	1862	Flannel	Knight & Macquaid.
1848	1855	Flannel	Francis Scott.
1848	1874	Worsted coating, suiting, cassimere, etc.	Jesse Eddy.
1848	1876	Blankets	M. H. Sanford.
1848	1877	Cassimere and kersey	Elijah Shaw.
1848	1883	Unfinished dress goods	Uriah Church & Son.
1850	1882	Satinet	Not known.
1850	1883	Satinet	Thomas Bottomley.
1851	1867	Flannel and blankets	George H. Gilbert.
1852	1852	Fancy cassimere	A corporation.
1852	1862	Shoddy	W. S. & F. Cordingley.
1852	1873	Fancy cassimere	Theodore, Edward, and Robert Pomeroy.
1852	1878	Cadet and steel satinet	Billings Mann and Albert Marshall.
1853	1853	Woollen goods, flannel, etc.	A corporation.
1853	1870	Cassimere, tricot, overcoating, and kersey	A corporation.
1853	1883	Cassimere	Moses Taft.
1854	1881	Woollen goods	Eli Thayer.
1855	1855	Cotton warp men's cloth	S. N. & C. Russell.
1855	1883	Satinet	Benjamin James.
1856	1880	Woollen goods	A corporation.
1856	1880	Satinet	William H. Cary.
1857	1884	Flannel	Charles P. and Thomas Talbot.
1858	1882	Woollen yarn	B. L. Morrison.
1858	1882	Wool shoddies and extracts	Francis B. Ray.
1859	-	Fancy cassimere	R. Bullock.
1860	1870	Heavy and light cassimere	John Chase.

WORSTED GOODS.

1852	1853	Cotton and worsted dress goods	A corporation.
1857	1875	Worsted yarn	Allan Cameron and J. W. Abbott.
1860	1860	Worsted yarn	James Dugdale.

We next present a summary by years, from 1639 to 1860, for all the "old establishments," meaning, by this term, those for which the names of the founders are given, and of which 85,

established in 1860, were 25 years old in 1885, while 1,296 were older, the oldest having reached the ripe industrial age of 246 years.

Date of Establishment of "Old Establishments."

YEARS.	Number Estab- lished in Years Speci- fied	YEARS.	Number Estab- lished in Years Speci- fied	YEARS.	Number Estab- lished in Years Speci- fied
1639,	1	1809,	3	1837,	28
1643,	1	1810,	8	1838,	9
1689,	1	1812,	10	1839,	13
1690,	1	1813,	10	1840,	50
1740,	1	1814,	4	1841,	17
1760,	3	1815,	1	1842,	32
1765,	1	1816,	5	1843,	23
1770,	1	1817,	2	1844,	27
1775,	2	1818,	3	1845,	52
1776,	1	1819,	3	1846,	31
1780,	4	1820,	9	1847,	37
1782,	1	1821,	5	1848,	43
1785,	1	1822,	7	1849,	32
1786,	1	1823,	10	1850,	82
1787,	2	1824,	7	1851,	33
1790,	3	1825,	15	1852,	62
1792,	2	1826,	11	1853,	59
1793,	2	1827,	4	1854,	61
1794,	1	1828,	16	1855,	53
1795,	2	1829,	6	1856,	60
1798,	1	1830,	25	1857,	43
1800,	15	1831,	9	1858,	48
1801,	3	1832,	13	1859,	52
1804,	3	1833,	12	1860,	85
1805,	3	1834,	13	Unknown,	*3
1807,	3	1835,	36		
1808,	2	1836,	40	TOTAL,	1,384

* Paper and Paper Goods, 1; Print Works, Dye Works, and Bleacheries, 1; and Woollen Goods, 1.

When condensed, by periods of years, we obtain the following summary :

CLASSIFICATION BY PERIODS OF YEARS.	Number Established in Periods Specified	Percentages
Previous to 1815,	97	7.01
1815 to 1830,	129	9.32
1831 to 1860,	1,155	83.45
Unknown,	3	0.22
TOTALS,	1,384	100.00

Of the 1,384 old establishments, we see that 97, or 7.01 per cent, were started during the early industrial period, or previous to 1815; there were 129, or 9.32 per cent, founded during the period of transition, or from 1815 to 1830; in that part of the present industrial period between 1831 and 1860 there were 1,155, or 83.45 per cent, established.

The next table shows the whole number of establishments in the Census year; the number of old establishments for which the founders' names were given; the value of product in all establishments during the Census year; the value of product in the old establishments; and the percentages of value of product in old establishments of the total value of product.

Old Establishments: Comparative Number and Value of Product; with Percentages.

INDUSTRIES.	ESTABLISHMENTS		VALUE OF PRODUCT IN—		Percentages of Value of Product in "Old Establishments" of Total Value of Product
	Whole Number (Census Year)	Number of "Old Establishments"	All Establishments (Census Year)	"Old Establishments"	
Agricultural implements,	30	3	\$1,324,597	\$858,616	64.82
Arms and ammunition,	40	5	2,058,879	851,408	41.35
Artificial teeth and dental work,	489	—	651,857	—	—
Artisans' tools,	140	15	2,509,107	1,374,938	54.80
Awnings, tents, and decorations,	14	—	108,579	—	—
Boots and shoes,	2,366	145	114,729,533	32,677,145	28.48
Boxes (paper and wooden),	215	20	4,332,505	1,024,843	23.65
Brick, tiles, and sewer pipe,	114	5	1,541,879	318,212	20.64
Brooms, brushes, and mops,	72	1	1,365,373	50,000	3.66
Building,	3,773	103	39,801,245	5,699,278	14.32
Burial cases, caskets, coffins, etc.,	113	3	770,333	295,700	38.39
Buttons and dress trimmings,	16	3	1,016,153	725,692	71.42
Carpetings,	46	7	6,536,341	5,121,962	78.36
Carriages and wagons,	1,013	34	7,277,933	1,907,451	26.21
Cement, kaolin, lime, and plaster,	16	2	239,875	74,400	31.02
Charcoal and kindlers,	11	—	11,480	—	—
Chemical preparations (compounded),	23	3	1,165,134	580,014	49.78
Clocks and watches,	47	3	3,325,199	2,594,946	78.04
Clothing,	2,402	55	32,659,837	9,771,803	29.92
Concrete walks, paving, etc.,	20	—	150,798	—	—
Cooking, lighting, and heating apparatus,	65	17	3,131,582	1,684,675	53.80
Cordage and twine,	52	9	5,077,261	3,453,062	68.01
Corks, bungs, and taps,	4	1	144,000	43,000	29.86
Cotton goods,	165	66	61,425,097	35,750,259	58.20
Cotton, woollen, and other textiles,	4	2	2,394,583	1,377,848	57.54
Crayons, pencils, crucibles, etc.,	7	1	104,490	33,000	31.58
Drugs and medicines,	916	12	4,722,838	1,864,083	39.47
Dyestuffs,	9	4	789,973	276,815	35.04

*Old Establishments: Comparative Number and Value of Product; with
Percentages—Continued.*

INDUSTRIES	ESTABLISHMENTS		VALUE OF PRODUCT IN—		Percentages of Value of Product in "Old Estab- lishments" of Total Value of Product
	Whole Number (Census (Year)	Number of "Old Estab- lish- ments"	All Estab- lish- ments (Census Year)	"Old Estab- lish- ments"	
Earthen, plaster, and stone ware, . . .	22	5	\$433,213	\$210,600	48.61
Electrical apparatus and appliances, . . .	40	1	1,397,737	172,633	12.35
Electroplating,	35	—	214,507	—	—
Emery and sand paper and cloth, etc., . . .	13	1	566,101	102,663	18.14
Fancy articles,	18	1	81,981	36,000	43.91
Fertilizers,	17	1	2,778,987	633,600	22.80
Fine arts and taxidermy,	23	—	42,124	—	—
Fireworks and matches,	5	1	91,210	23,364	25.62
Flax, hemp, and jute goods,	9	2	1,493,623	1,052,898	70.49
Food preparations,	1,711	109	80,488,329	31,039,226	38.56
Furniture,	603	45	12,716,908	5,094,712	40.06
Gas and residual products,	66	31	4,573,962	4,182,506	91.44
Glass,	20	6	1,091,949	877,880	80.40
Glue, isinglass, and starch,	29	7	1,306,331	489,931	37.50
Hair work (animal and human),	55	2	442,063	317,950	71.92
Hose: rubber, linen, etc.,	3	—	790,480	—	—
Hosiery and knit goods,	60	7	4,196,522	1,760,086	41.94
Ink, mucilage, and paste,	20	1	131,626	20,000	15.19
Ivory, bone, shell, and horn goods, etc., . . .	39	5	1,628,413	170,000	10.44
Jewelry burnishing and lapidary work,	7	1	47,500	26,000	54.74
Leather,	699	79	28,008,851	9,206,302	32.87
Linen,	3	2	1,068,489	730,989	68.41
Liquors and beverages (not spirituous), . . .	63	1	641,216	40,000	6.24
Liquors: malt, distilled, and fer- mented,	218	20	7,881,240	3,252,279	41.27
Lumber,	466	10	3,627,345	627,447	17.30
Machines and machinery,	622	63	20,365,970	7,662,201	37.62
Metals and metallic goods,	2,732	114	41,332,005	21,036,701	50.90
Mixed textiles,	13	4	1,323,861	385,328	29.11
Models and patterns,	51	—	258,242	—	—
Musical instruments and materials,	93	25	6,145,008	3,423,842	55.72
Oils and illuminating fluids,	28	7	2,294,931	1,349,518	58.80
Paints, colors, and crude chemicals, . . .	22	4	763,034	363,651	47.66
Paper and paper goods,	148	45	21,223,626	8,006,063	37.72
Perfumes, toilet articles, etc.,	10	1	409,801	200,000	48.80
Photographs and photographic ma- terials,	241	1	936,165	30,000	3.20
Polishes and dressing,	65	10	1,788,412	1,100,645	61.54
Printing, publishing, and bookbinding, . . .	712	58	16,552,475	7,379,760	44.58
Print works, dye works, and bleach- eries,	96	14	15,880,843	12,649,943	79.66
Railroad construction,	15	7	2,158,224	968,901	44.89
Rubber and elastic goods,	41	3	12,638,741	3,369,908	26.66
Salt,	5	—	46,890	—	—
Scientific instruments and appliances, . . .	65	6	1,227,683	746,568	60.81
Shipbuilding,	279	12	2,107,986	539,925	25.61
Silk and silk goods,	12	4	3,501,240	2,530,660	72.28

Old Establishments: Comparative Number and Value of Product; with Percentages — Concluded.

INDUSTRIES.	ESTABLISHMENTS		VALUE OF PRODUCT IN —		Percentages of Value of Product in "Old Establishments" of Total Value of Product
	Whole Number (Census Year)	Number of "Old Establishments"	All Establishments (Census Year)	"Old Establishments"	
Sporting and athletic goods, . . .	27	4	\$1,079,966	\$628,000	58.15
Stone,	378	24	5,508,563	2,077,171	37.71
Straw and palm leaf goods, . . .	47	11	6,265,287	3,716,622	59.32
Tallow, candles, soap, and grease, .	155	13	3,474,890	2,235,875	64.34
Tobacco, snuff, and cigars, . . .	302	2	2,813,084	146,427	5.21
Toys and games (children's), . . .	15	2	316,895	154,207	48.66
Trunks and valises,	25	3	346,720	131,300	37.87
Whips, lashes, and stocks, . . .	6	4	1,052,401	335,000	31.83
Wooden goods,	534	22	4,767,726	1,152,450	24.17
Woollen goods,	189	61	31,748,278	18,335,555	57.75
Worsted goods,	23	3	11,198,148	3,579,981	31.97
ALL INDUSTRIES,	23,431	1,384	\$674,634,269	\$272,712,418	40.42

As we have previously stated, the old establishments, 1,384 in number, form 5.91 per cent of the whole number of establishments. The value of product in the old establishments in 1885 was \$272,712,418, or 40.42 per cent of the total product of all establishments in the Census year. The average annual product per establishment was \$197,047, which indicates that the larger establishments predominate. This is more fully shown by an examination of the industry lines. We present the average annual product of the old establishments in a few of the industries.

INDUSTRIES.	Average Annual Product per "Old Establishment"
Agricultural implements,	\$236,205
Boots and shoes,	225,360
Carpetings,	731,709
Cotton goods,	541,671
Food preparations,	234,764
Hosiery and knit goods,	251,441
Metals and metallic goods,	182,928
Musical instruments and materials,	136,954
Paper and paper goods,	177,913
Print works, dye works, and bleacheries,	903,567
Rubber and elastic goods,	1,123,303
Silk and silk goods,	632,665
Woollen goods,	300,583
Worsted goods,	1,193,327

These figures are more conclusive than the general average for all industries and prove that the “old establishments” are, particularly in the leading industries, the large establishments. This fact is a tribute to the business ability of the founders and their successors, and a witness to the stability and prosperous growth of the manufacturing industries of the State.

We next classify the percentages of value of product in old establishments of the total value of product. The presentation is for the 83 industries.

CLASSIFICATION OF PERCENTAGES.		Number of Industries in which the Product of "Old Establishments" is the Specified Percentage of Total Product
Under 10 per cent,		4
10 but under 20 per cent,		6
20 but under 30 per cent,		12
30 but under 40 per cent,		14
40 but under 50 per cent,		12
50 but under 60 per cent,		11
60 but under 70 per cent,		6
70 but under 80 per cent,		7
80 but under 90 per cent,		1
90 but under 100 per cent,		1
New industries,		*9
TOTAL,		83

* In these industries all existing establishments have been started since 1860.

For more effective consideration, we consolidate the percentages.

CLASSIFICATION OF PERCENTAGES.		Number of Industries in which the Product of "Old Establishments" is the Specified Percentage of Total Product	Percentages
Under 20 per cent,		10	12.05
20 but under 40 per cent,		26	31.33
40 but under 60 per cent,		23	27.71
60 but under 80 per cent,		13	15.66
80 per cent and over,		2	2.41
New industries,		9	10.84
TOTALS,		83	100.00

In 12.05 per cent of the industries the value of product of old establishments is less than one-fifth of the total product ; in 31.33 per cent, more than one-fifth but less than two-fifths ; in 27.71 per cent, more than two-fifths but less than three-fifths ; in 15.66 per cent, more than three-fifths but less than four-fifths ; in 2.41 per cent, four-fifths or more. The " new " industries, or those in which the existing establishments were founded in 1861 or since, form 10.84 per cent of the whole number of industries.

The 15 industries in which the value of product of the " old establishments " is 60 per cent or over of the total product of all establishments are as follows :

Agricultural Implements.	Linen.
Buttons and Dress Trimmings.	Polishes and Dressing.
Carpetings.	Print Works, Dye Works, and
Clocks and Watches.	Bleacherics.
Cordage and Twine.	Scientific Instruments and Appli-
Flax, Hemp, and Jute Goods.	ances.
Gas and Residual Products.	Silk and Silk Goods.
Glass.	Tallow, Candles, Soap, and Grease.
Hair Work (Animal and Human).	

The nine industries in which all of the existing establishments were started at a later date than 1860 are named below.

Artificial Teeth and Dental Work.	Fine Arts and Taxidermy.
Awnings, Tents, and Decorations.	Hose : Rubber, Linen, etc.
Charcoal and Kindlers.	Models and Patterns.
Concrete Walks, Paving, etc.	Salt.
Electroplating.	

THE GROWTH OF MANUFACTURES. COMPARATIVE INDUSTRIAL STATISTICS FROM THE CENSUSES OF 1845, 1855, 1865, 1875, AND 1885.

There are two conditions that affect the accuracy of comparisons between the industrial statistics of the different years, which should be borne in mind when such comparisons are made. The first is incomplete enumeration. The second is variations in classification.

The number of establishments making return in 1845 was 4,439 ; in 1855, 4,818 ; in 1865, 9,262 ; in 1875, 22,793 ; and in 1885, 23,431. We are of the opinion that the enumeration in 1845, 1855, and 1865 was not so thorough and complete

as in 1875 and 1885. While the returns for the industries actually considered were practically complete, many industries were omitted that should have been included in order to procure a complete total of the value of manufactured goods and mechanical work done.

The classification of the various articles of manufacture under so called "industry heads" has been a work of evolution. Many articles, in fact the majority, fall naturally under an obvious classification, but it has been difficult to classify consistently what was formerly conveniently called "Miscellaneous Manufactures." Properly speaking, no manufactures are miscellaneous, and the use of such a designation simply indicated that the work of classification had not been completed. In the classification of the manufactures formerly called "miscellaneous" many natural industry titles were easily settled upon, but, in some instances, an arbitrary decision had to be made. Two of these industry headings need a general explanation. Under "Cotton, Woollen, and Other Textiles" it has been the intention to include the products of those establishments that manufactured goods made of cotton, other goods made of wool, and other goods made of some different textile material, the various materials not being mixed in the course of manufacture. On the other hand, it has been the office practice to include under "Mixed Textiles" the product of those establishments that manufactured goods composed of several textiles mixed in the process of manufacture.

One circumstance that has prevented a thoroughly harmonious classification was entirely beyond the control of the Census office. In many establishments articles of various kinds are manufactured which properly belong under two or more industry heads. To avoid duplications in the number of establishments, it becomes necessary to put these articles under one industry heading only. The obvious question is, "Which one shall be selected?" The office practice has been to settle the matter on the score of "preponderance," based upon value of goods made and work done. For instance, a saw and grist mill may manufacture "shingles" and "meal." The shingles would naturally be classified under "Lumber," while the meal would as naturally be classified under "Food Preparations." If the value of the shingles amounted to \$1,000 and the value

of the meal to \$1,500, the method of classification, as settled by preponderance, has been to classify the whole amount, \$2,500, under "Food Preparations," the \$1,500 which would naturally be credited to "Food Preparations" being larger than the \$1,000 which would naturally be credited to "Lumber;" that is, it is all classified under "Food Preparations," because the amount for that industry is larger, or "preponderates." If the figures had been reversed, the whole amount would have been classified under "Lumber." By following this plan, we secure a classification of the articles without duplicating the number of establishments, which would necessitate the subdivision of all the information supplied by those establishments.

In 1875, but 45 industry heads were used, the balance of manufactured articles being included under "Miscellaneous Manufactures" and "Occupations," the latter designation including those industries in which the product was principally "work done." In the classification used in the presentation made of manufactures as drawn from the United States Census returns of 1880, the number of industry heads was increased to 62, but many manufactured articles were included under "All Other Industries," which title was virtually the same as "Miscellaneous Manufactures."

The present classification brings all manufactured articles under 83 industry heads, and the title "Miscellaneous Manufactures" disappears as a classification line.

In the Census of 1875, under the classification "Occupations Related to Manufactures," were included 180 lines each descriptive of some kind of "work done." In the Census of 1885 all these lines have been classified under the industry heads with which the "work done" was legitimately connected. In 1875, under "Miscellaneous Manufactures" were classified 179 kinds of manufactured articles. In 1885 these have either been classified under existing industry heads or made into new ones.

The 38 new industry heads in use in 1885 have been formed as follows :

From "Occupations,"	2
From "Miscellaneous Manufactures,"	29
By subdivision, or "setting off,"	6
New titles,	1
Total,	<hr/> 38

In comparing industry results for the Census years 1875 and 1885, these changes should be borne in mind, for they affect aggregates to a greater or less degree. The classification used in 1885 covered all goods made and work done in the State, and it is believed that few if any changes will be needed in the next Census, unless new industries are established in the Commonwealth. The fewer the changes in classification as between two Census years the better the basis for scientific comparison, but those made since 1875 have been necessary in order to eliminate "Miscellaneous Manufactures" and "Occupations" and put harmonious classifications in their place.

In the various industry analyses the principal facts for 1875 and 1885 are presented in a comparative way in numbers, and, whenever possible, in percentages. The bases used in both Census years were identical as regards number of establishments, value of stock used, persons employed, wages paid, motive power, and value of goods made. It is but natural, however, that the extreme care taken in the enumeration in 1885 should have secured more complete returns. This was particularly the case as regards the amount of capital invested. The actual capital used in production, and not the nominal capital stock, was secured in every case from corporations. Besides this, all firms and corporations were obliged to state the amount of credit capital (borrowed money) used in their business, and this added a hitherto omitted portion of capital invested. This explanation will account for a part of the very marked increases in capital invested shown in many industries.

In order to show plainly the variations in the classifications used in the Census years 1875 and 1885, we present the changes and new classifications made in the form of head-notes for each industry, in the following series of tables. The dash (—) is used in the analysis of each table simply to separate figures and thus avoid confusion in reading them.

*In the comparative industry tables which follow, for the years 1845, 1855, 1865, 1875, and 1885, the currency values originally given for the Census years 1865 and 1875 have been reduced to a **gold basis** so as to allow of proper comparison with the **gold values** for 1845, 1855, and 1885. The currency value of One Dollar in gold was \$1.57 in 1865, and \$1.12 in 1875.*

THE GROWTH OF MANUFACTURES. COMPARATIVE INDUSTRIAL STATISTICS
FROM THE CENSUSES OF 1845, 1855, 1865, 1875, AND 1885:
BY INDUSTRIES.
AGRICULTURAL IMPLEMENTS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	132	55	40	39	30
Capital invested,	\$252,115	\$657,375	\$677,096	\$1,021,942	\$2,172,966
Value of stock used,	—	—	\$930,261	\$326,416	\$511,755
Persons employed,	588	1,260	1,109	1,187	821
Wages paid,	—	—	—	\$714,898	\$348,654
Motive power (horse power), . .	—	—	—	1,474	1,056
Value of goods made,	\$510,838	\$1,779,027	\$1,687,140	\$2,111,665	\$1,324,597

Analysis.

Private firms, 24. Corporations, 6. Total number of establishments in 1885, —30.
Oldest existing manufactory established in 1776. Number established since 1875, —8.
Oldest existing corporation established in 1844. Original capital stock, \$25,000.
Capital stock of all corporations at time of incorporation, \$1,015,000.
Capital stock of all corporations on June 30, 1885, —\$877,000. *Decrease* in 1885, —\$138,000.
Partners, 33. Stockholders, 67. Total number of partners and stockholders in 1885, —100.
Capital invested: In plant, \$741,634. Cash, \$804,915. Credit capital (borrowed money), \$626,417.
Total capital invested in 1885, —\$2,172,966. Total capital invested in 1875, —\$1,021,942.
Capital invested: *Increase* in 1885 as compared with 1875, —112.63 per cent.
Value of stock used: *Increase* in 1885 as compared with 1875, —56.78 per cent.
Value of goods made: *Decrease* in 1885 as compared with 1875, —37.27 per cent.
Persons employed: *Decrease* in 1885 as compared with 1875, —30.83 per cent.
Number of persons to whom salaries were paid in 1885, —36. Average yearly salary, \$1,366.
Number of persons to whom wages were paid in 1885, —859. Average yearly wage, \$405.88.
Motive power: *Decrease*, 418 horse power.

ARMS AND AMMUNITION.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	32	33	36	55	40
Capital invested,	\$1,029,848	\$236,500	\$1,016,720	\$874,143	\$4,491,094
Value of stock used,	—	—	\$1,042,821	\$375,935	\$627,351
Persons employed,	454	376	2,307	1,593	1,684
Wages paid,	—	—	—	\$655,593	\$994,069
Motive power (horse power), . .	—	—	—	1,105	1,123
Value of goods made,	\$508,319	\$673,751	\$3,119,805	\$1,359,126	\$2,058,879

Analysis.

Private firms, 36. Corporations, 4. Total number of establishments in 1885, —40.
Oldest existing manufactory established in 1800. Number established since 1875, —8.
Oldest existing corporation established in 1832. Original capital stock, \$30,000.
Capital stock of all corporations at time of incorporation, \$955,000.
Capital stock of all corporations on June 30, 1885, —\$1,075,000. *Increase* in 1885, —\$120,000.
Partners, 49. Stockholders, 145. Total number of partners and stockholders in 1885, —194.
Capital invested: In plant, \$3,481,358. Cash, \$533,665. Credit capital (borrowed money), \$426,071.
Total capital invested in 1885, —\$4,491,094. Total capital invested in 1875, —\$874,143.
Capital invested: *Increase* in 1885 as compared with 1875, —\$3,616,951.
Value of stock used: *Increase* in 1885 as compared with 1875, —66.88 per cent.
Value of goods made: *Increase* in 1885 as compared with 1875, —51.49 per cent.
Persons employed: *Increase* in 1885 as compared with 1875, —51.85 per cent.
Number of persons to whom salaries were paid in 1885, —69. Average yearly salary, \$1,373.
Number of persons to whom wages were paid in 1885, —1,771. Average yearly wage, \$561.30.
Motive power: *Increase*, 18 horse power.

The Growth of Manufactures — Continued.

ARTIFICIAL TEETH AND DENTAL WORK.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	45	489
Capital invested,	-	-	-	\$23,129	\$250,098
Value of stock used,	-	-	-	-	\$149,104
Persons employed,	-	-	-	-	60
Wages paid,	-	-	-	-	\$32,720
Motive power (horse power), . .	-	-	-	-	9
Value of goods made,	-	-	-	\$60,195	\$651,857

Analysis.

Private firms, 489. Corporations, —. Total number of establishments in 1885, — 489.
 Oldest existing manufactory established in 1825. Number established since 1875, — 176.
 Partners, 524. Stockholders, —. Total number of partners and stockholders in 1885, — 524.
 Capital invested: In plant, \$193,774. Cash, \$55,624. Credit capital (borrowed money), \$700.
 Total capital invested in 1885, — \$250,098. Total capital invested in 1875, — \$23,129.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$226,969.
 Value of goods made: *Increase* in 1885 as compared with 1875 — \$591,662.
 Number of persons to whom wages were paid in 1885, — 59. Average yearly wage, \$554.58.

ARTISANS' TOOLS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	35	26	55	153	140
Capital invested,	\$48,225	\$409,860	\$1,203,344	\$2,010,285	\$3,685,971
Value of stock used,	-	-	\$994,398	\$742,839	\$756,919
Persons employed,	340	1,532	2,162	1,240	1,724
Wages paid,	-	-	-	\$653,060	\$894,764
Motive power (horse power), . .	-	-	-	1,757	2,324½
Value of goods made,	\$256,340	\$1,769,268	\$2,212,892	\$2,235,946	\$2,509,107

Analysis.

Private firms, 129. Corporations, 11. Total number of establishments in 1885, — 140.
 Oldest existing manufactory established in 1790. Number established since 1875, — 44.
 Oldest existing corporation established in 1836. Original capital stock, \$400,000.
 Capital stock of all corporations at time of incorporation, \$1,004,000.
 Capital stock of all corporations on June 30, 1885, — \$1,699,400. *Increase* in 1885, — \$695,400.
 Partners, 181. Stockholders, 623. Total number of partners and stockholders in 1885, — 804.
 Capital invested: In plant, \$2,073,902. Cash, \$1,334,620. Credit capital (borrowed money), \$277,449.
 Total capital invested in 1885, — \$3,685,971. Total capital invested in 1875, — \$2,010,285.
 Capital invested: *Increase* in 1885 as compared with 1875, — 83.36 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 1.90 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 12.22 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 39.03 per cent.
 Number of persons to whom salaries were paid in 1885, — 92. Average yearly salary, \$1,266.
 Number of persons to whom wages were paid in 1885, — 2,002. Average yearly wage, \$446.94.
 Motive power: *Increase*, 567½ horse power.

The Growth of Manufactures — Continued.

AWNINGS, TENTS, AND DECORATIONS,

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	2	14
Capital invested,	-	-	-	\$281	\$48,652
Value of stock used,	-	-	-	-	\$43,135
Persons employed,	-	-	-	-	88
Wages paid,	-	-	-	-	\$35,650
Motive power (horse power), . .	-	-	-	-	4
Value of goods made,	-	-	-	\$1,326	\$108,579

Analysis.

Private firms, 14. Corporations, —. Total number of establishments in 1885, —14.
 Oldest existing manufactory established in 1847. Number established since 1875, —4.
 Partners, 22. Stockholders, —. Total number of partners and stockholders in 1885, —22.
 Capital invested: In plant, \$9,102. Cash, \$38,250. Credit capital (borrowed money), \$1,300.
 Total capital invested in 1885, —\$48,652. Total capital invested in 1875, —\$281.
 Capital invested: Increase in 1885 as compared with 1875, —\$48,371.
 Value of goods made: Increase in 1885 as compared with 1875, —\$107,253.
 Number of persons to whom wages were paid in 1885, —100. Average yearly wage, \$356.50.

BOOTS AND SHOES.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	206	2,638	2,366
Capital invested,	-	-	\$6,574,904	\$17,398,629	\$34,313,421
Value of stock used,	-	-	\$23,196,717	\$49,086,164	\$70,178,677
Persons employed,	45,877	77,827	52,821	48,090	64,858
Wages paid,	-	-	-	\$17,580,410	\$26,916,608
Motive power (horse power), . .	-	-	-	4,630	10,435½
Value of goods made,	\$14,799,140	\$37,501,725	\$35,741,393	\$83,153,755	\$114,729,533

Analysis.

Private firms, 2,344. Corporations, 22. Total number of establishments in 1885, —2,366.
 Oldest existing manufactory established in 1794. Number established since 1875, —988.
 Oldest existing corporation established in 1866. Original capital stock, \$165,000.
 Capital stock of all corporations at time of incorporation, \$1,765,000.
 Capital stock of all corporations on June 30, 1885, —\$2,059,350. Increase in 1885, —\$294,350.
 Partners, 3,034. Stockholders, 416. Total number of partners and stockholders in 1885, —3,450.
 Capital invested: In plant, \$9,392,564. Cash, \$20,354,644. Credit capital (borrowed money), \$4,596,213.
 Total capital invested in 1885, —\$34,313,421. Total capital invested in 1875, —\$17,398,629.
 Capital invested: Increase in 1885 as compared with 1875, —97.22 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, —42.97 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, —37.97 per cent.
 Persons employed: Increase in 1885 as compared with 1875, —34.87 per cent.
 Number of persons to whom salaries were paid in 1885, —1,201. Average yearly salary, \$954.
 Number of persons to whom wages were paid in 1885, —69,531. Average yearly wage, \$387.12.
 Motive power: Increase, 5,805½ horse power.

The Growth of Manufactures—Continued.

BOXES (PAPER AND WOODEN).

[Called "Boxes" in 1875. Paper and wooden boxes put under the same industry heading in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	199	221	157	215
Capital invested,	—	\$439,125	\$326,504	\$1,024,330	\$2,484,920
Value of stock used,	—	—	\$508,828	\$1,206,465	\$2,147,410
Persons employed,	235	792	1,191	1,528	3,364
Wages paid,	—	—	—	\$631,996	\$1,111,542
Motive power (horse power), . .	—	—	—	2,969	3,730½
Value of goods made,	\$215,105	\$997,783	\$887,718	\$2,343,662	\$4,332,505

Analysis.

Private firms, 209. Corporations, 6. Total number of establishments in 1885, — 215.
 Oldest existing manufactory established in 1773. Number established since 1875, — 89.
 Oldest existing corporation established in 1868. Original capital stock, \$54,000.
 Capital stock of all corporations at time of incorporation, \$180,800.
 Capital stock of all corporations on June 30, 1885, — \$189,400. *Increase* in 1885, — \$8,600.
 Partners, 272. Stockholders, 48. Total number of partners and stockholders in 1885, — 320.
 Capital invested: In plant, \$1,287,131. Cash, \$903,582. Credit capital (borrowed money), \$294,207.
 Total capital invested in 1885, — \$2,484,920. Total capital invested in 1875, — \$1,024,330.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$1,460,590.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 77.99 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 84.86 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 120.16 per cent.
 Number of persons to whom salaries were paid in 1885, — 47. Average yearly salary, \$907.
 Number of persons to whom wages were paid in 1885, — 3,591. Average yearly wage, \$309.54.
 Motive power: *Increase*, 761½ horse power.

BRICK, TILES, AND SEWER PIPE.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	—	101	249	114
Capital invested,	—	—	—	\$3,344,466	\$2,262,414
Value of stock used,	—	—	—	\$418,014	\$428,230
Persons employed,	1,407	1,109	1,079	2,394	2,741
Wages paid,	—	—	—	—	\$668,004
Motive power (horse power), . .	—	—	—	—	680
Value of goods made,	\$612,832	\$2,267,165	—	\$3,483,666	\$1,812,634

Analysis.

Private firms, 110. Corporations, 4. Total number of establishments in 1885, — 114.
 Oldest existing manufactory established in 1795. Number established since 1875, — 34.
 Oldest existing corporation established in 1863. Original capital stock, \$400,000.
 Capital stock of all corporations at time of incorporation, \$509,000.
 Capital stock of all corporations on June 30, 1885, — \$510,000. *Increase* in 1885, — \$1,000.
 Partners, 142. Stockholders, 147. Total number of partners and stockholders in 1885, — 289.
 Capital invested: In plant, \$1,297,304. Cash, \$543,228. Credit capital (borrowed money), \$421,882.
 Total capital invested in 1885, — \$2,262,414. Total capital invested in 1875, — \$3,344,466.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 32.35 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 2.44 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 47.97 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 14.49 per cent.
 Number of persons to whom salaries were paid in 1885, — 20. Average yearly salary, \$1,303.
 Number of persons to whom wages were paid in 1885, — 2,880. Average yearly wage, \$231.95.

The Growth of Manufactures — Continued.

BROOMS, BRUSHES, AND MOPS.

[Called "Brushes and Brooms" in 1875. "Mops" added in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	19	18	10	57	72
Capital invested,	\$68,875	\$267,600	\$179,108	\$353,259	\$673,349
Value of stock used,	—	—	\$197,527	\$470,241	\$759,570
Persons employed,	533	689	535	669	897
Wages paid,	—	—	—	\$44,689	\$309,159
Motive power (horse power),	—	—	—	—	225½
Value of goods made,	\$254,714	\$807,635	\$378,075	\$914,219	\$1,365,373

Analysis.

Private firms, 68. Corporations, 4. Total number of establishments in 1885, — 72.
 Oldest existing manufactory established in 1792. Number established since 1875, — 25.
 Oldest existing corporation established in 1792.
 Capital stock of all corporations at time of incorporation, \$135,000.
 Capital stock of all corporations on June 30, 1885, — \$135,000. No change in 1885.
 Partners, 94. Stockholders, 61. Total number of partners and stockholders in 1885, — 155.
 Capital invested: In plant, \$254,714. Cash, \$350,982. Credit capital (borrowed money), \$97,925.
 Total capital invested in 1885, — \$673,349. Total capital invested in 1875, — \$353,259.
 Capital invested: Increase in 1885 as compared with 1875, — 90.61 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 61.53 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 49.35 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 34.08 per cent.
 Number of persons to whom salaries were paid in 1885, — 33. Average yearly salary, \$935.
 Number of persons to whom wages were paid in 1885, — 977. Average yearly wage, \$316.44.

BUILDING.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	—	788	3,937	3,773
Capital invested,	—	—	—	\$5,825,058	\$11,292,199
Value of stock used,	—	—	\$2,625,103	\$3,081,737	\$18,388,452
Persons employed,	—	—	4,742	4,033	27,873
Wages paid,	—	—	—	\$9,221,946	\$12,726,457
Motive power (horse power),	—	—	—	1,115	2,620½
Value of goods made,	—	—	\$4,272,099	\$25,518,343	\$39,530,490

Analysis.

Private firms, 3,764. Corporations, 9. Total number of establishments in 1885, — 3,773.
 Oldest existing manufactory established in 1790. Number established since 1875, — 1,275.
 Oldest existing corporation established in 1858. Original capital stock, \$36,000.
 Capital stock of all corporations at time of incorporation, \$350,500.
 Capital stock of all corporations on June 30, 1885, — \$400,500. Increase in 1885, — \$50,000.
 Partners, 4,412. Stockholders, 105. Total number of partners and stockholders in 1885, — 4,517.
 Capital invested: In plant, \$4,378,773. Cash, \$5,144,357. Credit capital (borrowed money), \$1,769,069.
 Total capital invested in 1885, — \$11,292,199. Total capital invested in 1875, — \$5,825,058.
 Capital invested: Increase in 1885 as compared with 1875, — 93.86 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 15,306,715.
 Value of goods made: Increase in 1885 as compared with 1875, — 54.91 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 23,840.
 Number of persons to whom salaries were paid in 1885, — 110. Average yearly salary, \$875.
 Number of persons to whom wages were paid in 1885, — 34,657. Average yearly wage, \$367.21.
 Motive power: Increase, 1,505½ horse power.

The Growth of Manufactures — Continued.

BURIAL CASES, CASKETS, COFFINS, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	55	113
Capital invested,	-	-	-	\$302,242	\$428,178
Value of stock used,	-	-	-	-	\$388,331
Persons employed,	-	-	-	-	352
Wages paid,	-	-	-	-	\$175,128
Motive power (horse power), . .	-	-	-	-	159
Value of goods made,	-	-	-	\$480,528	\$770,333

Analysis.

Private firms, 112. Corporations, 1. Total number of establishments in 1885, — 113.
 Oldest existing manufactory established in 1800. Number established since 1875, — 39.
 Oldest existing corporation established in 1873. Original capital stock, \$20,000.
 Capital stock of all corporations at time of incorporation, \$20,000.
 Capital stock of all corporations on June 30, 1885, — \$20,000. No change in 1885.
 Partners, 148. Stockholders, 40. Total number of partners and stockholders in 1885, — 188.
 Capital invested: In plant, \$229,675. Cash, \$172,678. Credit capital (borrowed money), \$25,825.
 Total capital invested in 1885, — \$428,178. Total capital invested in 1875, — \$302,242.
 Capital invested: Increase in 1885 as compared with 1875, — 41.67 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 60.31 per cent.
 Number of persons to whom salaries were paid in 1885, — 17. Average yearly salary, \$1,368.
 Number of persons to whom wages were paid in 1885, — 367. Average yearly wage, \$477.19.

BUTTONS AND DRESS TRIMMINGS.

[Called "Dress Trimmings" in 1875. "Buttons" added in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	2	7	10	10	16
Capital invested,	\$51,500	\$172,500	\$144,459	\$365,179	\$804,341
Value of stock used,	-	-	\$186,815	\$190,496	\$399,110
Persons employed,	60	229	419	771	1,038
Wages paid,	-	-	-	\$60,195	\$295,134
Motive power (horse power), . .	-	-	-	24	123
Value of goods made,	\$56,080	\$267,120	\$387,654	\$499,159	\$1,016,153

Analysis.

Private firms, 10. Corporations, 6. Total number of establishments in 1885, — 16.
 Oldest existing manufactory established in 1845. Number established since 1875, — 6.
 Oldest existing corporation established in 1865. Original capital stock, \$150,000.
 Capital stock of all corporations at time of incorporation, \$400,000.
 Capital stock of all corporations on June 30, 1885, — \$375,000. Decrease in 1885, — \$25,000.
 Partners, 19. Stockholders, 93. Total number of partners and stockholders in 1885, — 112.
 Capital invested: In plant, \$319,271. Cash, \$361,358. Credit capital (borrowed money), \$123,712.
 Total capital invested in 1885, — \$804,341. Total capital invested in 1875, — \$365,179.
 Capital invested: Increase in 1885 as compared with 1875, — 120.26 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 109.51 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 103.57 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 34.63 per cent.
 Number of persons to whom salaries were paid in 1885, — 23. Average yearly salary, \$1,564.
 Number of persons to whom wages were paid in 1885, — 1,061. Average yearly wage, \$278.17.
 Motive power: Increase, 99 horse power.

The Growth of Manufactures—Continued.

CARPETINGS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	17	13	13	69	46
Capital invested,	\$488,000	\$2,264,172	\$1,509,682	\$3,476,141	\$7,464,758
Value of stock used,	—	—	\$2,008,668	\$2,889,827	\$4,075,069
Persons employed,	1,034	1,614	1,734	3,119	4,171
Wages paid,	—	—	—	\$896,542	\$1,275,827
Motive power (horse power), . . .	—	—	—	1,975	2,639
Value of goods made,	\$834,322	\$1,362,819	\$2,679,942	\$5,625,756	\$6,536,341

Analysis.

Private firms, 39. Corporations, 7. Total number of establishments in 1885, — 46.
 Oldest existing manufactory established in 1828. Number established since 1875, — 14.
 Oldest existing corporation established in 1828. Original capital stock, \$500,000.
 Capital stock of all corporations at time of incorporation, \$978,400.
 Capital stock of all corporations on June 30, 1885, — \$3,207,400. Increase in 1885, — \$2,229,000.
 Partners, 42. Stockholders, 937. Total number of partners and stockholders in 1885, — 979.
 Capital invested: In plant, \$3,518,551. Cash, \$2,391,117. Credit capital (borrowed money), \$1,554,790.
 Total capital invested in 1885, — \$7,464,758. Total capital invested in 1875, — \$3,476,141.
 Capital invested: Increase in 1885 as compared with 1875, — 114.74 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 41.01 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 16.19 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 33.73 per cent.
 Number of persons to whom salaries were paid in 1885, — 51. Average yearly salary, \$2,051.
 Number of persons to whom wages were paid in 1885, — 4,207. Average yearly wage, \$303.26.
 Motive power: Increase, 664 horse power.

CARRIAGES AND WAGONS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	563	425	285	1,115	1,013
Capital invested,	\$553,434	\$949,770	\$705,056	\$2,568,324	\$4,804,564
Value of stock used,	—	—	\$795,333	\$1,874,262	\$2,972,444
Persons employed,	1,881	2,491	1,941	3,072	4,806
Wages paid,	—	—	—	\$1,812,321	\$2,277,877
Motive power (horse power), . . .	—	—	—	1,039	1,815
Value of goods made,	\$1,343,576	\$2,352,955	\$1,546,355	\$5,214,743	\$7,277,933

Analysis.

Private firms, 1,009. Corporations, 4. Total number of establishments in 1885, — 1,013.
 Oldest existing manufactory established in 1786. Number established since 1875, — 364.
 Oldest existing corporation established in 1848. Original capital stock, \$8,000.
 Capital stock of all corporations at time of incorporation, \$147,000.
 Capital stock of all corporations on June 30, 1885, — \$199,250. Increase in 1885, — \$52,250.
 Partners, 1,174. Stockholders, 97. Total number of partners and stockholders in 1885, — 1,271.
 Capital invested: In plant, \$2,104,089. Cash, \$2,192,997. Credit capital (borrowed money), \$507,478.
 Total capital invested in 1885, — \$4,804,564. Total capital invested in 1875, — \$2,568,324.
 Capital invested: Increase in 1885 as compared with 1875, — 87.07 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 58.59 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 39.56 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 56.45 per cent.
 Number of persons to whom salaries were paid in 1885, — 40. Average yearly salary, \$1,034.
 Number of persons to whom wages were paid in 1885, — 5,051. Average yearly wage, \$450.93.
 Motive power: Increase, 776 horse power.

The Growth of Manufactures — Continued.

CEMENT, KAOLIN, LIME, AND PLASTER.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	11	16
Capital invested,	-	-	-	\$72,589	\$127,563
Value of stock used,	-	-	-	-	\$87,805
Persons employed,	-	-	-	-	173
Wages paid,	-	-	-	-	\$52,962
Motive power (horse power), . .	-	-	-	-	135
Value of goods made,	-	-	-	\$139,631	\$239,875

Analysis.

Private firms, 13. Corporations, 3. Total number of establishments in 1885, — 16.
 Oldest existing manufactory established in 1831. Number established since 1875, — 3.
 Oldest existing corporation established in 1876. Original capital stock, \$6,000.
 Capital stock of all corporations at time of incorporation, \$26,000.
 Capital stock of all corporations on June 30, 1885, — \$30,200. Increase in 1885, — \$4,200.
 Partners, 21. Stockholders, 12. Total number of partners and stockholders in 1885, — 33.
 Capital invested: In plant, \$68,440. Cash, \$44,223. Credit capital (borrowed money), \$14,900.
 Total capital invested in 1885, — \$127,563. Total capital invested in 1875, — \$72,589.
 Capital invested: Increase in 1885 as compared with 1875, — 75.73 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 71.79 per cent.
 Number of persons to whom salaries were paid in 1885, — 3. Average yearly salary, \$1,650.
 Number of persons to whom wages were paid in 1885, — 179. Average yearly wage, \$295.88.

CHARCOAL AND KINDLERS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	4	11
Capital invested,	-	-	-	\$16,429	\$4,233
Value of stock used,	-	-	-	-	\$4,258
Persons employed,	-	-	-	-	9
Wages paid,	-	-	-	-	\$1,905
Motive power (horse power), . .	-	-	-	-	50
Value of goods made,	-	-	-	\$19,643	\$11,480

Analysis.

Private firms, 11. Corporations, —. Total number of establishments in 1885, — 11.
 Oldest existing manufactory established in 1846. Number established since 1875, — 3.
 Partners, 12. Stockholders, —. Total number of partners and stockholders in 1885, — 12.
 Capital invested: In plant, \$3,183. Cash, \$1,050.
 Total capital invested in 1885, — \$4,233. Total capital invested in 1875, — \$16,429.
 Capital invested: Decrease in 1885 as compared with 1875, — 74.23 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 41.56 per cent.
 Number of persons to whom wages were paid in 1885, — 9. Average yearly wage, \$211.67.

The Growth of Manufactures — Continued.

CHEMICAL PREPARATIONS (COMPOUNDED).

[Called "Chemical Preparations" in 1875. Limited to "compounded" preparations only in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	-	-	-	2	23
Capital invested,	-	-	-	\$18,304	\$893,520
Value of stock used,	-	-	-	-	\$700,096
Persons employed,	-	-	-	-	284
Wages paid,	-	-	-	\$88,631	\$141,588
Motive power (horse power),	-	-	-	154	605
Value of goods made,	-	-	-	\$68,036	\$1,165,134

Analysis.

Private firms, 16. Corporations, 7. Total number of establishments in 1885, — 23.
 Oldest existing manufactory established in 1830. Number established since 1875, — 15.
 Oldest existing corporation established in 1863. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$555,000.
 Capital stock of all corporations on June 30, 1885, — \$605,000. Increase in 1885, — \$50,000.
 Partners, 24. Stockholders, 59. Total number of partners and stockholders in 1885, — 83.
 Capital invested: In plant, \$317,330. Cash, \$501,314. Credit capital (borrowed money), \$74,876.
 Total capital invested in 1885, — \$893,520. Total capital invested in 1875, — \$18,304.
 Capital invested: Increase in 1885 as compared with 1875, — \$875,216.
 Value of goods made: Increase in 1885 as compared with 1875, — \$1,097,098.
 Number of persons to whom salaries were paid in 1885, — 24. Average yearly salary, \$1,442.
 Number of persons to whom wages were paid in 1885, — 311. Average yearly wage, \$455.27.
 Motive power: Increase, 451 horse power.

CLOCKS AND WATCHES.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	9	2	2	14	47
Capital invested,	\$10,350	\$17,000	\$27,389	\$1,655,313	\$5,356,679
Value of stock used,	-	-	\$4,140	\$467,538	\$842,038
Persons employed,	40	26	42	1,140	3,128
Wages paid,	-	-	-	\$698,386	\$1,666,037
Motive power (horse power),	-	-	-	16	236½
Value of goods made,	\$54,975	-	\$22,780	\$1,189,129	\$3,325,199

Analysis.

Private firms, 41. Corporations, 6. Total number of establishments in 1885, — 47.
 Oldest existing manufactory established in 1792. Number established since 1875, — 20.
 Oldest existing corporation established in 1858. Original capital stock, \$300,000.
 Capital stock of all corporations at time of incorporation, \$852,500.
 Capital stock of all corporations on June 30, 1885, — \$2,728,500. Increase in 1885, — \$1,876,000.
 Partners, 59. Stockholders, 399. Total number of partners and stockholders in 1885, — 458.
 Capital invested: In plant, \$1,604,311. Cash, \$1,099,045. Credit capital (borrowed money), \$2,652,823.
 Total capital invested in 1885, — \$5,356,679. Total capital invested in 1875, — \$1,655,313.
 Capital invested: Increase in 1885 as compared with 1875, — \$3,701,366.
 Value of stock used: Increase in 1885 as compared with 1875, — 80.10 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — \$2,136,070.
 Persons employed: Increase in 1885 as compared with 1875, — 1,988.
 Number of persons to whom salaries were paid in 1885, — 35. Average yearly salary, \$2,238.
 Number of persons to whom wages were paid in 1885, — 3,644. Average yearly wage, \$457.20.
 Motive power: Increase, 220½ horse power.

The Growth of Manufactures — Continued.

CLOTHING.

["Hosiery and Knit Goods," included under the above heading in 1875, was set off as a separate industry in 1885. In order to make a proper comparison between the results given below for 1875 and 1885, reference should be made to the figures for 1885 under "Hosiery and Knit Goods."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	160	93	830	2,107	2,402
Capital invested,	\$213,793	\$3,120,973	\$4,540,570	\$8,878,450	\$12,399,808
Value of stock used,	—	—	\$11,839,815	\$15,831,333	\$17,775,263
Persons employed,	1,003	1,758	30,119	13,817	18,325
Wages paid,	—	—	—	\$4,813,258	\$6,101,683
Motive power (horse power),	—	—	—	1,530	1,289
Value of goods made,	\$797,434	\$9,061,896	\$15,792,578	\$28,071,672	\$32,659,837

Analysis.

Private firms, 2,387. Corporations, 15. Total number of establishments in 1885, — 2,402.
 Oldest existing manufactory established in 1777. Number established since 1875, — 1,164.
 Oldest existing corporation established in 1850. Original capital stock, \$125,000.
 Capital stock of all corporations at time of incorporation, \$1,255,500.
 Capital stock of all corporations on June 30, 1885, — \$1,329,550. Increase in 1885, — \$74,050.
 Partners, 2,806. Stockholders, 506. Total number of partners and stockholders in 1885, — 3,312.
 Capital invested: In plant, \$1,541,207. Cash, \$8,565,290. Credit capital (borrowed money), \$2,293,401.
 Total capital invested in 1885, — \$12,399,808. Total capital invested in 1875, — \$8,878,450.
 Capital invested: Increase in 1885 as compared with 1875, — 39.66 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 12.23 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 16.34 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 32.63 per cent.
 Number of persons to whom salaries were paid in 1885, — 531. Average yearly salary, \$793.
 Number of persons to whom wages were paid in 1885, — 20,945. Average yearly wage, \$291.32.
 Motive power: Decrease, 241 horse power.

CONCRETE WALKS, PAVING, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	—	—	20	20
Capital invested,	—	—	—	\$23,817	\$58,035
Value of stock used,	—	—	—	—	\$48,138
Persons employed,	—	—	—	—	220
Wages paid,	—	—	—	—	\$68,375
Motive power (horse power),	—	—	—	—	—
Value of goods made,	—	—	—	\$121,767	\$150,798

Analysis.

Private firms, 20. Corporations, —. Total number of establishments in 1885, — 20.
 Oldest existing manufactory established in 1863. Number established since 1875, — 6.
 Partners, 24. Stockholders, —. Total number of partners and stockholders in 1885, — 24.
 Capital invested: In plant, \$28,935. Cash, \$29,100.
 Total capital invested in 1885, — \$58,035. Total capital invested in 1875, — \$23,817.
 Capital invested: Increase in 1885 as compared with 1875, — \$34,218.
 Value of goods made: Increase in 1885 as compared with 1875, — 23.84 per cent.
 Number of persons to whom wages were paid in 1885, — 278. Average yearly wage, \$245.95.

The Growth of Manufactures — Continued.

COOKING, LIGHTING, AND HEATING APPARATUS.

[Formed part of "Metals and Metallic Goods" in 1875. Made a separate industry heading in 1885. The few figures presented for 1875 were drawn from "Miscellaneous Manufactures."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	8	65
Capital invested, . . .	-	-	-	\$1,027	\$3,048,562
Value of stock used, . . .	-	-	-	-	\$1,035,837
Persons employed, . . .	-	-	-	-	2,123
Wages paid, . . .	-	-	-	-	\$1,210,434
Motive power (horse power), . . .	-	-	-	-	894
Value of goods made, . . .	-	-	-	\$8,080	\$3,131,582

Analysis.

Private firms, 45. Corporations, 20. Total number of establishments in 1885, — 65.
 Oldest existing manufactory established in 1825. Number established since 1875, — 31.
 Oldest existing corporation established in 1847. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$1,913,000.
 Capital stock of all corporations on June 30, 1885, — \$2,153,100. *Increase* in 1885, — \$240,100.
 Partners, 76. Stockholders, 524. Total number of partners and stockholders in 1885, — 600.
 Capital invested: In plant, \$1,045,124. Cash, \$1,274,113. Credit capital (borrowed money), \$729,325.
 Total capital invested in 1885, — \$3,048,562. Total capital invested in 1875, — \$1,027.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$3,047,535.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$3,123,502.
 Number of persons to whom salaries were paid in 1885, — 85. Average yearly salary, \$1,195.
 Number of persons to whom wages were paid in 1885, — 2,419. Average yearly wage, \$500.39.

CORDAGE AND TWINE.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	49	44	31	43	52
Capital invested, . . .	\$543,930	\$636,400	\$541,513	\$969,821	\$4,250,284
Value of stock used, . . .	-	-	\$1,264,450	\$1,338,129	\$3,443,596
Persons employed, . . .	647	1,000	822	992	2,573
Wages paid, . . .	-	-	-	-	\$715,140
Motive power (horse power), . . .	-	-	-	-	2,788
Value of goods made, . . .	\$906,721	-	\$1,763,632	\$3,815,476	\$5,077,261

Analysis.

Private firms, 38. Corporations, 14. Total number of establishments in 1885, — 52.
 Oldest existing manufactory established in 1824. Number established since 1875, — 23.
 Oldest existing corporation established in 1824. Original capital stock, \$44,000.
 Capital stock of all corporations at time of incorporation, \$1,864,000.
 Capital stock of all corporations on June 30, 1885, — \$2,577,760. *Increase* in 1885, — \$713,760.
 Partners, 63. Stockholders, 387. Total number of partners and stockholders in 1885, — 450.
 Capital invested: In plant, \$1,949,205. Cash, \$1,600,573. Credit capital (borrowed money), \$700,506.
 Total capital invested in 1885, — \$4,250,284. Total capital invested in 1875, — \$969,821.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$3,280,463.
 Value of stock used: *Increase* in 1885 as compared with 1875, — \$2,105,467.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 33.07 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 1,581.
 Number of persons to whom salaries were paid in 1885, — 75. Average yearly salary, \$1,407.
 Number of persons to whom wages were paid in 1885, — 2,745. Average yearly wage, \$260.52.

The Growth of Manufactures—Continued.

CORKS, BUNGS, AND TAPS.

["Corks" included under "Miscellaneous Manufactures" in 1875. "Bungs and Taps" transferred from "Wooden Goods," and a separate industry heading, as above, made in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	4	4
Capital invested, . . .	-	-	-	\$33,929	\$76,935
Value of stock used, . . .	-	-	-	-	\$87,832
Persons employed, . . .	-	-	-	-	79
Wages paid, . . .	-	-	-	-	\$24,386
Motive power (horse power), . . .	-	-	-	-	-
Value of goods made, . . .	-	-	-	\$100,804	\$144,000

Analysis.

Private firms, 4. Corporations, —. Total number of establishments in 1885, — 4.
 Oldest existing manufactory established in 1849. Number established since 1875, — 1.
 Partners, 6. Stockholders, —. Total number of partners and stockholders in 1885, — 6.
 Capital invested: In plant, \$28,245. Cash, \$30,500. Credit capital (borrowed money), \$18,190.
 Total capital invested in 1885, — \$76,935. Total capital invested in 1875, — \$33,929.
 Capital invested: Increase in 1885 as compared with 1875, — \$43,006.
 Value of goods made: Increase in 1885 as compared with 1875, — 42.85 per cent.
 Number of persons to whom salaries were paid in 1885, — 3. Average yearly salary, \$612.
 Number of persons to whom wages were paid in 1885, — 83. Average yearly wage, \$293.81.

COTTON GOODS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	302	294	237	220	165
Capital invested, . . .	\$17,739,000	\$31,961,000	\$21,542,730	\$57,004,204	\$118,947,040
Value of stock used, . . .	-	-	\$32,097,982	\$36,660,619	\$36,625,530
Persons employed, . . .	20,710	34,787	24,151	60,176	60,132
Wages paid, . . .	-	-	-	\$16,711,862	\$16,915,633
Motive power (horse power), . . .	-	-	-	53,854	115,398½
Value of goods made, . . .	\$12,193,449	\$26,140,537	\$35,355,699	\$69,554,001	\$61,425,097
Number of spindles, . . .	817,483	1,519,527	1,913,756	3,859,237	5,133,325

Analysis.

Private firms, 54. Corporations, 111. Total number of establishments in 1885, — 165.
 Oldest existing manufactory established in 1800. Number established since 1875, — 43.
 Oldest existing corporation established in 1813. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$34,823,350.
 Capital stock of all corporations on June 30, 1885, — \$54,083,214. Increase in 1885, — \$19,259,864.
 Partners, 97. Stockholders, 14,460. Total number of partners and stockholders in 1885, — 14,557.
 Capital invested: In plant, \$68,124,092. Cash, \$23,637,439. Credit capital (borrowed money), \$27,185,509.
 Total capital invested in 1885, — \$118,947,040. Total capital invested in 1875, — \$57,004,204.
 Capital invested: Increase in 1885 as compared with 1875, — 108.66 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 0.10 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 11.73 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 0.07 per cent.
 Number of persons to whom salaries were paid in 1885, — 516. Average yearly salary, \$1,778.
 Number of persons to whom wages were paid in 1885, — 63,111. Average yearly wage, \$268.03.
 Motive power: Increase, 61,544½ horse power.

The Growth of Manufactures — Continued.
COTTON, WOOLLEN, AND OTHER TEXTILES.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	28	4
Capital invested,	-	-	-	\$4,242,497	\$3,852,854
Value of stock used,	-	-	-	\$3,803,737	\$1,409,853
Persons employed,	-	-	-	3,290	2,410
Wages paid,	-	-	-	\$1,068,565	\$638,356
Motive power (horse power), . . .	-	-	-	-	3,591
Value of goods made,	-	-	-	\$7,239,235	\$2,394,583

Analysis.

Private firms, 1. Corporations, 3. Total number of establishments in 1885, — 4.
 Oldest existing manufactory established in 1795. Number established since 1875, — 2.
 Oldest existing corporation established in 1831. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$1,250,000.
 Capital stock of all corporations on June 30, 1885, — \$1,700,000. Increase in 1885, — \$450,000.
 Partners, 2. Stockholders, 397. Total number of partners and stockholders in 1885, — 399.
 Capital invested: In plant, \$1,786,377. Cash, \$791,477. Credit capital (borrowed money), \$1,275,000.
 Total capital invested in 1885, — \$3,852,854. Total capital invested in 1875, — \$4,242,497.
 Capital invested: Decrease in 1885 as compared with 1875, — 9.18 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 62.94 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 66.92 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 26.75 per cent.
 Number of persons to whom salaries were paid in 1885, — 4. Average yearly salary, \$1,625.
 Number of persons to whom wages were paid in 1885, — 2,415. Average yearly wage, \$264.33.

CRAYONS, PENCILS, CRUCIBLES, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	3	7
Capital invested,	-	-	-	\$9,821	\$161,932
Value of stock used,	-	-	-	-	\$32,241
Persons employed,	-	-	-	-	94
Wages paid,	-	-	-	-	\$28,230
Motive power (horse power), . . .	-	-	-	-	135
Value of goods made,	-	-	-	\$31,071	\$104,490

Analysis.

Private firms, 5. Corporations, 2. Total number of establishments in 1885, — 7.
 Oldest existing manufactory established in 1835. Number established since 1875, — 3.
 Oldest existing corporation established in 1865. Original capital stock, \$35,000.
 Capital stock of all corporations at time of incorporation, \$50,000.
 Capital stock of all corporations on June 30, 1885, — \$95,000. Increase in 1885, — \$15,000.
 Partners, 8. Stockholders, 24. Total number of partners and stockholders in 1885, — 32.
 Capital invested: In plant, \$93,253. Cash, \$43,297. Credit capital (borrowed money), \$25,382.
 Total capital invested in 1885, — \$161,932. Total capital invested in 1875, — \$9,821.
 Capital invested: Increase in 1885 as compared with 1875, — \$152,111.
 Value of goods made: Increase in 1885 as compared with 1875, — \$73,419.
 Number of persons to whom salaries were paid in 1885, — 3. Average yearly salary, \$1,667.
 Number of persons to whom wages were paid in 1885, — 95. Average yearly wage, \$297.16.

The Growth of Manufactures—Continued.

DRUGS AND MEDICINES.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	89	119	916
Capital invested,	-	-	\$302,336	\$1,003,773	\$1,553,506
Value of stock used,	-	-	\$597,231	\$1,191,348	\$1,893,477
Persons employed,	-	-	391	363	770
Wages paid,	-	-	-	\$130,096	\$295,932
Motive power (horse power), . . .	-	-	-	85	300 $\frac{3}{4}$
Value of goods made,	-	-	\$1,094,914	\$2,796,701	\$4,722,838

Analysis.

Private firms, 909. Corporations, 7. Total number of establishments in 1885, —916.
 Oldest existing manufactory established in 1639. Number established since 1875, —322.
 Oldest existing corporation established in 1820. Original capital stock, \$200.
 Capital stock of all corporations at time of incorporation, \$743,600.
 Capital stock of all corporations on June 30, 1885, —\$745,400. Increase in 1885, —\$1,800.
 Partners, 1,076. Stockholders, 32. Total number of partners and stockholders in 1885, —1,108.
 Capital invested: In plant, \$346,004. Cash, \$1,081,766. Credit capital (borrowed money), \$125,736.
 Total capital invested in 1885, —\$1,553,506. Total capital invested in 1875, —\$1,003,773.
 Capital invested: Increase in 1885 as compared with 1875, —54.77 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, —58.94 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, —68.87 per cent.
 Persons employed: Increase in 1885 as compared with 1875, —112.12 per cent.
 Number of persons to whom salaries were paid in 1885, —112. Average yearly salary, \$1,053.
 Number of persons to whom wages were paid in 1885, —803. Average yearly wage, \$368.53.
 Motive power: Increase, 215 $\frac{3}{4}$ horse power.

DYESTUFFS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	-	9
Capital invested,	-	-	-	-	\$440,225
Value of stock used,	-	-	-	-	\$574,178
Persons employed,	-	-	-	-	154
Wages paid,	-	-	-	-	\$83,377
Motive power (horse power), . . .	-	-	-	450	280
Value of goods made,	-	-	-	-	\$789,973

Analysis.

Private firms, 5. Corporations, 4. Total number of establishments in 1885, —9.
 Oldest existing manufactory established in 1839. Number established since 1875, —1.
 Oldest existing corporation established in 1878. Original capital stock, \$75,000.
 Capital stock of all corporations at time of incorporation, \$365,000.
 Capital stock of all corporations on June 30, 1885, —\$365,000. No change in 1885.
 Partners, 9. Stockholders, 51. Total number of partners and stockholders in 1885, —60.
 Capital invested: In plant, \$202,425. Cash, \$189,300. Credit capital (borrowed money), \$48,500.
 Total capital invested in 1885, —\$440,225.
 Number of persons to whom salaries were paid in 1885, —23. Average yearly salary, \$1,129.
 Number of persons to whom wages were paid in 1885, —193. Average yearly wage, \$432.01.
 Motive power: Decrease, 170 horse power.

The Growth of Manufactures — Continued.

EARTHEN, PLASTER, AND STONE WARE.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	20	22
Capital invested,	-	-	-	\$194,955	\$388,881
Value of stock used,	-	-	-	-	\$92,949
Persons employed,	-	-	-	-	377
Wages paid,	-	-	-	-	\$184,884
Motive power (horse power), . . .	-	-	-	-	124
Value of goods made,	-	-	-	\$267,777	\$433,213

Analysis.

Private firms, 21. Corporations, 1. Total number of establishments in 1885, — 22.
 Oldest existing manufactory established in 1765. Number established since 1875, — 6.
 Oldest existing corporation established in 1880. Original capital stock, \$10,000.
 Capital stock of all corporations at time of incorporation, \$10,000.
 Capital stock of all corporations on June 30, 1885, — \$50,000. Increase in 1885, — \$40,000.
 Partners, 28. Stockholders, 21. Total number of partners and stockholders in 1885, — 49.
 Capital invested: In plant, \$191,565. Cash, \$129,849. Credit capital (borrowed money), \$67,467.
 Total capital invested in 1885, — \$388,881. Total capital invested in 1875, — \$194,955.
 Capital invested: Increase in 1885 as compared with 1875, — 99.47 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 61.78 per cent.
 Number of persons to whom salaries were paid in 1885, — 11. Average yearly salary, \$1,093.
 Number of persons to whom wages were paid in 1885, — 391. Average yearly wage, \$472.85.

ELECTRICAL APPARATUS AND APPLIANCES.

[Formed part of "Scientific Instruments and Appliances" in 1875. Made a separate industry heading in 1885. The few figures presented for 1875 were drawn from "Miscellaneous Manufactures."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	1	40
Capital invested,	-	-	-	\$22,321	\$2,612,525
Value of stock used,	-	-	-	-	\$618,083
Persons employed,	-	-	-	-	716
Wages paid,	-	-	-	-	\$432,074
Motive power (horse power), . . .	-	-	-	-	3,161
Value of goods made,	-	-	-	\$44,643	\$1,397,737

Analysis.

Private firms, 12. Corporations, 28. Total number of establishments in 1885, — 40.
 Oldest existing manufactory established in 1835. Number established since 1875, — 32.
 Oldest existing corporation established in 1877.
 Capital stock of all corporations at time of incorporation, \$3,993,000.
 Capital stock of all corporations on June 30, 1885, — \$4,411,800. Increase in 1885, — \$418,800.
 Partners, 16. Stockholders, 1,666. Total number of partners and stockholders in 1885, — 1,682.
 Capital invested: In plant, \$1,557,658. Cash, \$691,205. Credit capital (borrowed money), \$363,662.
 Total capital invested in 1885, — \$2,612,525. Total capital invested in 1875, — \$22,321.
 Capital invested: Increase in 1885 as compared with 1875, — \$2,590,204.
 Value of goods made: Increase in 1885 as compared with 1875, — \$1,353,094.
 Number of persons to whom salaries were paid in 1885, — 64. Average yearly salary, \$1,379.
 Number of persons to whom wages were paid in 1885, — 754. Average yearly wage, \$573.04.

The Growth of Manufactures — Continued.

ELECTROPLATING.

[Included under "Occupations" in 1875. Owing to combinations with other articles and kinds of work done, it is impossible to separate the returns and make a presentation for 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	-	35
Capital invested,	-	-	-	-	\$93,365
Value of stock used,	-	-	-	-	\$48,911
Persons employed,	-	-	-	-	139
Wages paid,	-	-	-	-	\$67,122
Motive power (horse power), . . .	-	-	-	-	369
Value of goods made,	-	-	-	-	\$214,507

Analysis.

Private firms, 35. Corporations, —. Total number of establishments in 1885, — 35.
 Oldest existing manufactory established in 1842. Number established since 1875, — 17.
 Partners, 45. Stockholders, —. Total number of partners and stockholders in 1885, — 45.
 Capital invested: In plant, \$48,335. Cash, \$44,530. Credit capital (borrowed money), \$500.
 Total capital invested in 1885, — \$93,365.
 Number of persons to whom salaries were paid in 1885, — 7. Average yearly salary, \$754.
 Number of persons to whom wages were paid in 1885, — 139. Average yearly wage, \$422.15.

EMERY AND SAND PAPER AND CLOTH, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	7	13
Capital invested,	-	-	-	\$358,036	\$905,674
Value of stock used,	-	-	-	-	\$238,488
Persons employed,	-	-	-	-	206
Wages paid,	-	-	-	-	\$103,862
Motive power (horse power), . . .	-	-	-	-	312
Value of goods made,	-	-	-	\$252,277	\$566,101

Analysis.

Private firms, 7. Corporations, 6. Total number of establishments in 1885, — 13.
 Oldest existing manufactory established in 1856. Number established since 1875, — 7.
 Oldest existing corporation established in 1868. Original capital stock, \$100,000.
 Capital stock of all corporations at time of incorporation, \$356,500.
 Capital stock of all corporations on June 30, 1885, — \$356,500. No change in 1885.
 Partners, 17. Stockholders, 63. Total number of partners and stockholders in 1885, — 80.
 Capital invested: In plant, \$258,288. Cash, \$471,662. Credit capital (borrowed money), \$75,724.
 Total capital invested in 1885, — \$805,674. Total capital invested in 1875, — \$358,036.
 Capital invested: Increase in 1885 as compared with 1875, — \$447,638.
 Value of goods made: Increase in 1885 as compared with 1875, — 124.40 per cent.
 Number of persons to whom salaries were paid in 1885, — 26. Average yearly salary, \$1,171.
 Number of persons to whom wages were paid in 1885, — 213. Average yearly wage, \$487.62.

The Growth of Manufactures—Continued.

FANCY ARTICLES.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	10	18
Capital invested,	-	-	-	\$9,326	\$46,455
Value of stock used,	-	-	-	-	\$21,019
Persons employed,	-	-	-	-	110
Wages paid,	-	-	-	-	\$25,461
Motive power (horse power), . .	-	-	-	-	13
Value of goods made,	-	-	-	\$80,915	\$81,981

Analysis.

Private firms, 17. Corporations, 1. Total number of establishments in 1885, — 18.
 Oldest existing manufactory established in 1819. Number established since 1875, — 19.
 Oldest existing corporation established in 1882. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$25,000.
 Capital stock of all corporations on June 30, 1885, — \$25,000. No change in 1885.
 Partners, 18. Stockholders, 26. Total number of partners and stockholders in 1885, — 44.
 Capital invested: In plant, \$10,790. Cash, \$35,265. Credit capital (borrowed money), \$400.
 Total capital invested in 1885, — \$46,455. Total capital invested in 1875, — \$9,326.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$37,129.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 1.32 per cent.
 Number of persons to whom salaries were paid in 1885, — 2. Average yearly salary, \$720.
 Number of persons to whom wages were paid in 1885, — 138. Average yearly wage, \$184.50.

FERTILIZERS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	1	10	17
Capital invested,	-	-	\$12,739	\$1,120,982	\$3,230,315
Value of stock used,	-	-	\$35,032	\$332,909	\$1,689,390
Persons employed,	-	-	20	298	482
Wages paid,	-	-	-	\$167,907	\$247,026
Motive power (horse power), . .	-	-	-	426	1,238
Value of goods made,	-	-	\$47,771	\$760,625	\$2,778,987

Analysis.

Private firms, 11. Corporations, 6. Total number of establishments in 1885, — 17.
 Oldest existing manufactory established in 1856. Number established since 1875, — 11.
 Oldest existing corporation established in 1867. Original capital stock, \$1,000,000.
 Capital stock of all corporations at time of incorporation, \$1,770,000.
 Capital stock of all corporations on June 30, 1885, — \$2,270,000. *Increase* in 1885, — \$500,000.
 Partners, 21. Stockholders, 164. Total number of partners and stockholders in 1885, — 185.
 Capital invested: In plant, \$628,791. Cash, \$1,833,171. Credit capital (borrowed money), \$768,333.
 Total capital invested in 1885, — \$3,230,315. Total capital invested in 1875, — \$1,120,982.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$2,109,333.
 Value of stock used: *Increase* in 1885 as compared with 1875, — \$1,356,481.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$2,018,362.
 Persons employed: *Increase* in 1885 as compared with 1875, — 61.74 per cent.
 Number of persons to whom salaries were paid in 1885, — 24. Average yearly salary, \$1,022.
 Number of persons to whom wages were paid in 1885, — 552. Average yearly wage, \$447.51.
 Motive power: *Increase*, 812 horse power.

The Growth of Manufactures — Continued.

FINE ARTS AND TAXIDERMISTRY.

[Called "Fine Arts" in 1875. "Taxidermy" transferred from "Occupations," and a separate industry heading, as above, made in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	2	44	23
Capital invested, . . .	-	-	\$163	\$24,637	\$16,377
Value of stock used, . . .	-	-	\$252	\$5,286	\$9,192
Persons employed, . . .	-	-	3	22	18
Wages paid, . . .	-	-	-	-	\$8,840
Motive power (horse power), . . .	-	-	-	-	60
Value of goods made, . . .	-	-	\$994	\$74,366	\$42,124

Analysis.

Private firms, 23. Corporations, —. Total number of establishments in 1885, — 23.
 Oldest existing manufactory established in 1836. Number established since 1875, — 10.
 Partners, 25. Stockholders, —. Total number of partners and stockholders in 1885, — 25.
 Capital invested: In plant, \$3,992. Cash, \$11,885. Credit capital (borrowed money), \$500.
 Total capital invested in 1885, — \$16,377. Total capital invested in 1875, — \$24,637.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 33.53 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 73.89 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 43.36 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, — 18.18 per cent.
 Number of persons to whom salaries were paid in 1885, — 2. Average yearly salary, \$300.
 Number of persons to whom wages were paid in 1885, — 24. Average yearly wage, \$368.33.

FIREWORKS AND MATCHES.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	9	5
Capital invested, . . .	-	-	-	\$50,268	\$67,600
Value of stock used, . . .	-	-	-	-	\$20,621
Persons employed, . . .	-	-	-	-	102
Wages paid, . . .	-	-	-	-	\$25,909
Motive power (horse power), . . .	-	-	-	-	110
Value of goods made, . . .	-	-	-	\$123,437	\$91,210

Analysis.

Private firms, 4. Corporations, 1. Total number of establishments in 1885, — 5.
 Oldest existing manufactory established in 1850. Number established since 1875, — 1.
 Oldest existing corporation established in 1881. Original capital stock, \$2,250,000.
 Capital stock of all corporations at time of incorporation, \$2,250,000.
 Capital stock of all corporations on June 30, 1885, — \$3,000,000. *Increase* in 1885, — \$750,000.
 Partners, 6. Stockholders, 158. Total number of partners and stockholders in 1885, — 164.
 Capital invested: In plant, \$37,600. Cash, \$30,000.
 Total capital invested in 1885, — \$67,600. Total capital invested in 1875, — \$50,268.
 Capital invested: *Increase* in 1885 as compared with 1875, — 34.43 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 26.11 per cent.
 Number of persons to whom salaries were paid in 1885, — 1. Average yearly salary, \$1,300.
 Number of persons to whom wages were paid in 1885, — 116. Average yearly wage, \$223.35.

The Growth of Manufactures — Continued.

FLAX, HEMP, AND JUTE GOODS.

[Called "Bugs and Bagging" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	-	-	5	8	9
Capital invested,	-	-	\$68,790	\$390,893	\$1,257,000
Value of stock used,	-	-	\$218,133	\$471,080	\$883,729
Persons employed,	-	-	192	226	982
Wages paid,	-	-	-	\$49,824	\$237,154
Motive power (horse power),	-	-	-	325	1,000
Value of goods made,	-	-	\$267,107	\$609,782	\$1,493,623

Analysis.

Private firms, 8. Corporations, 1. Total number of establishments in 1885, — 9.
 Oldest existing manufactory established in 1849. Number established since 1875, — 1.
 Oldest existing corporation established in 1868. Original capital stock, \$225,000.
 Capital stock of all corporations at time of incorporation, \$225,000.
 Capital stock of all corporations on June 30, 1885, — \$400,000. Increase in 1885, — \$175,000.
 Partners, 14. Stockholders, 17. Total number of partners and stockholders in 1885, — 31.
 Capital invested: In plant, \$60,800. Cash, \$255,200. Credit capital (borrowed money), \$571,000.
 Total capital invested in 1885, — \$1,257,000. Total capital invested in 1875, — \$390,893.
 Capital invested: Increase in 1885 as compared with 1875, — \$866,107.
 Value of stock used: Increase in 1885 as compared with 1875, — 87.36 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — \$883,841.
 Persons employed: Increase in 1885 as compared with 1875, — 76.
 Number of persons to whom salaries were paid in 1885, — 13. Average yearly salary, \$1,727.
 Number of persons to whom wages were paid in 1885, — 1,066. Average yearly wage, \$216.98.
 Motive power: Increase, 760 horse power.

FOOD PREPARATIONS.

["Salt," included under the above heading in 1875, was set off as a separate industry in 1885.
 In order to make a proper comparison between the results below for 1875 and 1885, reference
 should be made to the figures for 1885 under "Salt."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	306	472	580	1,375	1,711
Capital invested,	\$901,335	\$1,741,374	\$2,407,492	\$11,010,843	\$20,832,706
Value of stock used,	-	-	\$7,906,820	\$28,443,102	\$62,742,977
Persons employed,	747	2,187	2,750	4,672	11,518
Wages paid,	-	-	-	\$2,525,914	\$4,806,499
Motive power (horse power),	-	-	-	9,134	12,802
Value of goods made,	\$1,502,375	\$8,665,484	\$13,757,723	\$56,762,455	\$80,188,329

Analysis.

Private firms, 1,678. Corporations, 33. Total number of establishments in 1885, — 1,711.
 Oldest existing manufactory established in 1636. Number established since 1875, — 686.
 Oldest existing corporation established in 1780.
 Capital stock of all corporations at time of incorporation, \$2,961,000.
 Capital stock of all corporations on June 30, 1885, — \$3,608,100. Increase in 1885, — \$647,100.
 Partners, 2,121. Stockholders, 848. Total number of partners and stockholders in 1885, — 2,969.
 Capital invested: In plant, \$9,917,089. Cash, \$9,248,358. Credit capital (borrowed money),
 \$1,667,259.
 Total capital invested in 1885, — \$20,832,706. Total capital invested in 1875, — \$11,010,843.
 Capital invested: Increase in 1885 as compared with 1875, — 74.82 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 125.59 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 41.80 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 6,846.
 Number of persons to whom salaries were paid in 1885, — 441. Average yearly salary, \$846.
 Number of persons to whom wages were paid in 1885, — 18,203. Average yearly wage, \$264.05.
 Motive power: Increase, 3,668 horse power.

The Growth of Manufactures—Continued.

FURNITURE.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	449	309	325	814	603
Capital invested,	\$477,374	\$1,913,615	\$1,240,304	\$5,546,688	\$9,313,557
Value of stock used,	—	—	\$1,639,513	\$3,774,120	\$5,940,631
Persons employed,	2,594	4,243	4,260	6,857	8,190
Wages paid,	—	—	—	\$3,173,796	\$3,624,028
Motive power (horse power), . . .	—	—	—	5,202	5,334½
Value of goods made,	\$1,476,679	\$3,969,982	\$3,394,260	\$10,788,902	\$12,716,908

Analysis.

Private firms, 588. Corporations, 15. Total number of establishments in 1885, — 603.
 Oldest existing manufactory established in 1780. Number established since 1875, — 266.
 Oldest existing corporation established in 1829.
 Capital stock of all corporations at time of incorporation, \$2,134,500.
 Capital stock of all corporations on June 30, 1885, — \$2,334,932. Increase in 1885, — \$200,432.
 Partners, 813. Stockholders, 406. Total number of partners and stockholders in 1885, — 1,219.
 Capital invested: In plant, \$2,520,425. Cash, \$5,685,793. Credit capital (borrowed money), \$1,107,339.
 Total capital invested in 1885, — \$9,313,557. Total capital invested in 1875, — \$5,546,688.
 Capital invested: Increase in 1885 as compared with 1875, — 67.91 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 57.40 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 17.87 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 19.44 per cent.
 Number of persons to whom salaries were paid in 1885, — 178. Average yearly salary, \$977.
 Number of persons to whom wages were paid in 1885, — 8,681. Average yearly wage, \$417.47.
 Motive power: Increase, 132½ horse power.

GAS AND RESIDUAL PRODUCTS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	37	58	53	66
Capital invested,	—	\$2,733,900	\$3,089,329	\$9,700,907	\$14,865,877
Value of stock used,	—	—	\$756,162	\$795,983	\$1,343,701
Persons employed,	—	318	663	1,155	1,221
Wages paid,	—	—	—	—	\$670,636
Motive power (horse power), . . .	—	—	—	—	438
Value of goods made,	—	\$932,332	\$1,293,685	\$3,884,679	\$4,573,962

Analysis.

Private firms, 3. Corporations, 63. Total number of establishments in 1885, — 66.
 Oldest existing manufactory established in 1823. Number established since 1875, — 5.
 Oldest existing corporation established in 1823. Original capital stock, \$325,000.
 Capital stock of all corporations at time of incorporation, \$5,607,283.
 Capital stock of all corporations on June 30, 1885, — \$14,132,900. Increase in 1885, — \$8,525,617.
 Partners, 6. Stockholders, 5,694. Total number of partners and stockholders in 1885, — 5,700.
 Capital invested: In plant, \$12,788,742. Cash, \$1,338,490. Credit capital (borrowed money), \$738,645.
 Total capital invested in 1885, — \$14,865,877. Total capital invested in 1875, — \$9,700,907.
 Capital invested: Increase in 1885 as compared with 1875, — 53.24 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 68.81 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 17.74 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 5.71 per cent.
 Number of persons to whom salaries were paid in 1885, — 222. Average yearly salary, \$1,195.
 Number of persons to whom wages were paid in 1885, — 1,685. Average yearly wage, \$398.

The Growth of Manufactures—Continued.

GLASS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	10	13	23	24	20
Capital invested, . . .	\$700,200	\$1,805,500	\$1,118,153	\$1,418,460	\$917,821
Value of stock used, . . .	-	-	\$793,376	\$449,496	\$345,387
Persons employed, . . .	630	1,887	2,101	1,291	982
Wages paid, . . .	-	-	-	\$671,196	\$492,518
Motive power (horse power), . .	-	-	-	326	182
Value of goods made, . . .	\$758,300	\$2,648,125	\$1,850,796	\$1,424,247	\$1,091,949

Analysis.

Private firms, 14. Corporations, 6. Total number of establishments in 1885, — 20.
 Oldest existing manufactory established in 1818. Number established since 1875, — 5.
 Oldest existing corporation established in 1818. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$1,518,000.
 Capital stock of all corporations on June 30, 1885, — \$769,527. *Decrease* in 1885, — \$748,473.
 Partners, 22. Stockholders, 392. Total number of partners and stockholders in 1885, — 414.
 Capital invested: In plant, \$399,272. Cash, \$462,949. Credit capital (borrowed money), \$55,600.
 Total capital invested in 1885, — \$917,821. Total capital invested in 1875, — \$1,418,460.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 35.29 per cent.
 Value of stock used: *Decrease* in 1885 as compared with 1875, — 23.16 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 23.33 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, — 23.93 per cent.
 Number of persons to whom salaries were paid in 1885, — 45. Average yearly salary, \$1,015.
 Number of persons to whom wages were paid in 1885, — 1,090. Average yearly wage, \$451.85.
 Motive power: *Decrease*, 144 horse power.

GLUE, ISINGLASS, AND STARCH.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	23	29
Capital invested, . . .	-	-	-	\$150,768	\$1,262,999
Value of stock used, . . .	-	-	-	-	\$860,038
Persons employed, . . .	-	-	-	-	543
Wages paid, . . .	-	-	-	-	\$202,554
Motive power (horse power), . .	-	-	-	-	1,711
Value of goods made, . . .	-	-	-	\$309,906	\$1,306,331

Analysis.

Private firms, 26. Corporations, 3. Total number of establishments in 1885, — 29.
 Oldest existing manufactory established in 1808. Number established since 1875, — 7.
 Oldest existing corporation established in 1872. Original capital stock, \$30,000.
 Capital stock of all corporations at time of incorporation, \$118,600.
 Capital stock of all corporations on June 30, 1885, — \$73,600. *Decrease* in 1885, — \$45,000.
 Partners, 50. Stockholders, 25. Total number of partners and stockholders in 1885, — 75.
 Capital invested: In plant, \$477,541. Cash, \$707,758. Credit capital (borrowed money), \$77,700.
 Total capital invested in 1885, — \$1,262,999. Total capital invested in 1875, — \$150,768.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$1,112,231.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$996,425.
 Number of persons to whom salaries were paid in 1885, — 15. Average yearly salary, \$1,127.
 Number of persons to whom wages were paid in 1885, — 698. Average yearly wage, \$290.19.

The Growth of Manufactures—Continued.

HAIR WORK (ANIMAL AND HUMAN).

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	71	55
Capital invested,	-	-	-	\$224,594	\$211,329
Value of stock used,	-	-	-	-	\$296,719
Persons employed,	-	-	-	-	208
Wages paid,	-	-	-	-	\$64,491
Motive power (horse power), . .	-	-	-	-	116
Value of goods made,	-	-	-	\$613,284	\$442,063

Analysis.

Private firms, 55. Corporations, —. Total number of establishments in 1885, — 55.
 Oldest existing manufactory established in 1837. Number established since 1875, — 15.
 Partners, 61. Stockholders, —. Total number of partners and stockholders in 1885, — 61.
 Capital invested: In plant, \$91,779. Cash, \$24,525. Credit capital (borrowed money), \$95,025.
 Total capital invested in 1885, — \$211,329. Total capital invested in 1875, — \$224,594.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 5.91 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 27.92 per cent.
 Number of persons to whom salaries were paid in 1885, — 7. Average yearly salary, \$738.
 Number of persons to whom wages were paid in 1885, — 223. Average yearly wage, \$282.86.

HOSE: RUBBER, LINEN, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	2	3
Capital invested,	-	-	-	\$178,571	\$285,912
Value of stock used,	-	-	-	-	\$259,006
Persons employed,	-	-	-	-	110
Wages paid,	-	-	-	-	\$24,204
Motive power (horse power), . .	-	-	-	-	200
Value of goods made,	-	-	-	\$161,607	\$790,480

Analysis.

Private firms, 1. Corporations, 2. Total number of establishments in 1885, — 3.
 Oldest existing manufactory established in 1857. Number established since 1875, — 1.
 Oldest existing corporation established in 1880. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$175,000.
 Capital stock of all corporations on June 30, 1885, — \$200,000. *Increase* in 1885, — \$25,000.
 Partners, 1. Stockholders, 32. Total number of partners and stockholders in 1885, — 33.
 Capital invested: In plant, \$80,500. Cash, \$54,500. Credit capital (borrowed money), \$150,912.
 Total capital invested in 1885, — \$235,912. Total capital invested in 1875, — \$178,571.
 Capital invested: *Increase* in 1885 as compared with 1875, — 60.11 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$628,873.
 Number of persons to whom salaries were paid in 1885, — 17. Average yearly salary, \$1,300.
 Number of persons to whom wages were paid in 1885, — 108. Average yearly wage, \$224.11.

The Growth of Manufactures—Continued.

HOSIERY AND KNIT GOODS.

[Formed part of "Clothing" in 1875. The few figures presented for 1875 were drawn from "Miscellaneous Manufactures."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	2	60
Capital invested,	-	-	-	\$469	\$4,070,971
Value of stock used,	-	-	-	-	\$2,291,765
Persons employed,	-	-	-	-	3,663
Wages paid,	-	-	-	-	\$1,044,949
Motive power (horse power), . . .	-	-	-	-	1,079½
Value of goods made,	-	-	-	\$654	\$4,196,522

Analysis.

Private firms, 51. Corporations, 9. Total number of establishments in 1885, — 60.
 Oldest existing manufactory established in 1837. Number established since 1875, — 30.
 Oldest existing corporation established in 1831. Original capital stock, \$600,000.
 Capital stock of all corporations at time of incorporation, \$1,096,000.
 Capital stock of all corporations on June 30, 1885, — \$1,856,000. Increase in 1885, — \$760,000.
 Partners, 76. Stockholders, 417. Total number of partners and stockholders in 1885, — 493.
 Capital invested: In plant, \$1,751,097. Cash, \$1,212,942. Credit capital (borrowed money), \$1,106,932.
 Total capital invested in 1885, — \$4,070,971. Total capital invested in 1875, — \$469.
 Capital invested: Increase in 1885 as compared with 1875, — \$4,070,502.
 Value of goods made: Increase in 1885 as compared with 1875, — \$4,195,868.
 Number of persons to whom salaries were paid in 1885, — 74. Average yearly salary, \$1,178.
 Number of persons to whom wages were paid in 1885, — 4,044. Average yearly wage, \$258.39.

INK, MUCILAGE, AND PASTE.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	12	20
Capital invested,	-	-	-	\$72,330	\$50,905
Value of stock used,	-	-	-	-	\$62,365
Persons employed,	-	-	-	-	62
Wages paid,	-	-	-	-	\$19,461
Motive power (horse power), . . .	-	-	-	-	16
Value of goods made,	-	-	-	\$197,169	\$131,626

Analysis.

Private firms, 20. Corporations, —. Total number of establishments in 1885, — 20.
 Oldest existing manufactory established in 1816. Number established since 1875, — 10.
 Partners, 26. Stockholders, —. Total number of partners and stockholders in 1885, — 26.
 Capital invested: In plant, \$14,845. Cash, \$30,060. Credit capital (borrowed money), \$6,000.
 Total capital invested in 1885, — \$50,905. Total capital invested in 1875, — \$72,330.
 Capital invested: Decrease in 1885 as compared with 1875, — 29.62 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 33.24 per cent.
 Number of persons to whom salaries were paid in 1885, — 2. Average yearly salary, \$1,383.
 Number of persons to whom wages were paid in 1885, — 65. Average yearly wage, \$299.40.

The Growth of Manufactures—Continued.

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	25	53	39
Capital invested,	-	-	\$113,694	\$748,080	\$2,411,301
Value of stock used,	-	-	\$148,959	\$221,515	\$725,194
Persons employed,	-	-	539	561	887
Wages paid,	-	-	-	-	\$331,404
Motive power (horse power), . .	-	-	-	-	564
Value of goods made,	-	-	\$329,036	\$1,848,919	\$1,623,413

Analysis.

Private firms, 35. Corporations, 4. Total number of establishments in 1885, — 39.
 Oldest existing manufactory established in 1823. Number established since 1875, — 17.
 Oldest existing corporation established in 1880. Original capital stock, \$750,000.
 Capital stock of all corporations at time of incorporation, \$1,429,500.
 Capital stock of all corporations on June 30, 1885, — \$1,429,500. No change in 1885.
 Partners, 61. Stockholders, 145. Total number of partners and stockholders in 1885, — 206.
 Capital invested: In plant, \$986,973. Cash, \$490,908. Credit capital (borrowed money), \$933,420.
 Total capital invested in 1885, — \$2,411,301. Total capital invested in 1875, — \$748,080.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$1,663,221.
 Value of stock used: *Increase* in 1885 as compared with 1875, — \$503,679.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 11.93 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 58.11 per cent.
 Number of persons to whom salaries were paid in 1885, — 23. Average yearly salary, \$1,496.
 Number of persons to whom wages were paid in 1885, — 974. Average yearly wage, \$340.25.

JEWELRY BURNISHING AND LAPIDARY WORK.

[Included under "Occupations" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	9	7
Capital invested,	-	-	-	\$18,428	\$20,675
Value of stock used,	-	-	-	-	\$23,303
Persons employed,	-	-	-	-	16
Wages paid,	-	-	-	-	\$9,534
Motive power (horse power), . .	-	-	-	-	-
Value of goods made,	-	-	-	\$41,333	\$47,500

Analysis.

Private firms, 7. Corporations, —. Total number of establishments in 1885, — 7.
 Oldest existing manufactory established in 1860. Number established since 1875, — 4.
 Partners, 9. Stockholders, —. Total number of partners and stockholders in 1885, — 9.
 Capital invested: In plant, \$8,275. Cash, \$11,900. Credit capital (borrowed money), \$500.
 Total capital invested in 1885, — \$20,675. Total capital invested in 1875, — \$18,428.
 Capital invested: *Increase* in 1885 as compared with 1875, — 12.19 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 14.92 per cent.
 Number of persons to whom salaries were paid in 1885, — 3. Average yearly salary, \$1,700.
 Number of persons to whom wages were paid in 1885, — 16. Average yearly wage, \$595.88.

The Growth of Manufactures—Continued.

LEATHER.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	772	851	667	529	699
Capital invested,	-	\$4,744,933	\$3,720,067	\$7,690,245	\$12,258,831
Value of stock used,	-	-	\$6,430,272	\$14,382,897	\$19,713,559
Persons employed,	2,691	4,808	5,321	6,620	9,228
Wages paid,	-	-	-	\$3,383,054	\$4,313,674
Motive power (horse power), . .	-	-	-	5,450	9,177
Value of goods made,	\$4,259,451	\$13,790,107	\$12,062,046	\$21,899,262	\$28,008,851

Analysis.

Private firms, 693. Corporations, 6. Total number of establishments in 1885, — 699.
 Oldest existing manufactory established in 1690. Number established since 1875, — 257.
 Oldest existing corporation established in 1871. Original capital stock, \$24,000.
 Capital stock of all corporations at time of incorporation, \$164,000.
 Capital stock of all corporations on June 30, 1885, — \$164,000. No change in 1885.
 Partners, 872. Stockholders, 53. Total number of partners and stockholders in 1885, — 925.
 Capital invested: In plant, \$3,398,766. Cash, \$6,621,554. Credit capital (borrowed money), \$2,238,511.
 Total capital invested in 1885, — \$12,258,831. Total capital invested in 1875, — \$7,690,245.
 Capital invested: *Increase* in 1885 as compared with 1875, — 59.41 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 37.06 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 27.90 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 39.40 per cent.
 Number of persons to whom salaries were paid in 1885, — 154. Average yearly salary, \$1,060.
 Number of persons to whom wages were paid in 1885, — 9,730. Average yearly wage, \$443.34.
 Motive power: *Increase*, 3,727 horse power.

LINEN.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	3	4	5	5	3
Capital invested,	\$79,000	\$550,000	\$423,567	\$825,000	\$1,197,180
Value of stock used,	-	-	\$583,215	\$248,310	\$749,858
Persons employed,	192	910	901	1,059	926
Wages paid,	-	-	-	\$269,303	\$248,207
Motive power (horse power), . .	-	-	-	450	1,110
Value of goods made,	\$145,000	\$1,440,000	\$847,707	\$705,901	\$1,068,489

Analysis.

Private firms, 1. Corporations, 2. Total number of establishments in 1885, — 3.
 Oldest existing manufactory established in 1835. Number established since 1875, — 1.
 Oldest existing corporation established in 1864. Original capital stock, \$120,000.
 Capital stock of all corporations at time of incorporation, \$520,000.
 Capital stock of all corporations on June 30, 1885, — \$675,000. *Increase* in 1885, — \$155,000.
 Partners, 5. Stockholders, 24. Total number of partners and stockholders in 1885, — 29.
 Capital invested: In plant, \$484,360. Cash, \$422,820. Credit capital (borrowed money), \$290,000.
 Total capital invested in 1885, — \$1,197,180. Total capital invested in 1875, — \$825,000.
 Capital invested: *Increase* in 1885 as compared with 1875, — 45.11 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — \$501,548.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 51.37 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, — 12.56 per cent.
 Number of persons to whom salaries were paid in 1885, — 9. Average yearly salary, \$1,651.
 Number of persons to whom wages were paid in 1885, — 891. Average yearly wage, \$278.57.
 Motive power: *Increase*, 660 horse power.

The Growth of Manufactures—Continued.

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

[Called "Liquors and Beverages" in 1875. Subdivided in 1885. The figures for 1875 are given under the next industry heading, "Liquors: Malt, Distilled, and Fermented."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	-	-	-	-	63
Capital invested,	-	-	-	-	\$428,447
Value of stock used,	-	-	-	-	\$291,260
Persons employed,	-	-	-	-	307
Wages paid,	-	-	-	-	\$119,941
Motive power (horse power),	-	-	-	-	39½
Value of goods made,	-	-	-	-	\$641,216

Analysis.

Private firms, 61. Corporations, 2. Total number of establishments in 1885, — 63.
 Oldest existing manufactory established in 1786. Number established since 1875, — 30.
 Oldest existing corporation established in 1883. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$50,000.
 Capital stock of all corporations on June 30, 1885, — \$50,000. No change in 1885.
 Partners, 77. Stockholders, 30. Total number of partners and stockholders in 1885, — 107.
 Capital invested: In plant, \$223,962. Cash, \$176,502. Credit capital (borrowed money), \$27,983.
 Total capital invested in 1885, — \$428,447.
 Number of persons to whom salaries were paid in 1885, — 10. Average yearly salary, \$957.
 Number of persons to whom wages were paid in 1885, — 324. Average yearly wage, \$370.19.

LIQUORS: MALT, DISTILLED, AND FERMENTED.

[Called "Liquors and Beverages" in 1875. Subdivided in 1885. The figures below, for 1885, include malt, distilled, and fermented liquors only. The statistics for non-spirituous liquors and beverages for 1885 are given under the preceding industry heading. See head-note to preceding industry.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	-	55	54	155	218
Capital invested,	-	\$1,085,925	\$660,252	\$3,709,204	\$6,170,297
Value of stock used,	-	-	\$1,043,882	\$3,458,956	\$4,168,809
Persons employed,	-	280	501	879	1,526
Wages paid,	-	-	-	\$435,711	\$779,024
Motive power (horse power),	-	-	-	834	2,090
Value of goods made,	-	\$3,509,667	\$1,885,039	\$8,006,375	\$7,881,240

Analysis.

Private firms, 215. Corporations, 3. Total number of establishments in 1885, — 218.
 Oldest existing manufactory established in 1710. Number established since 1875, — 82.
 Oldest existing corporation established in 1828. Original capital stock, \$35,000.
 Capital stock of all corporations at time of incorporation, \$222,600.
 Capital stock of all corporations on June 30, 1885, — \$337,600. Increase in 1885, — \$115,000.
 Partners, 281. Stockholders, 95. Total number of partners and stockholders in 1885, — 376.
 Capital invested: In plant, \$3,843,841. Cash, \$1,955,181. Credit capital (borrowed money), \$371,275.
 Total capital invested in 1885, — \$6,170,297. Total capital invested in 1875, — \$3,709,204.
 Capital invested: Increase in 1885 as compared with 1875, — 66.35 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 20.52 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 1.56 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 73.61 per cent.
 Number of persons to whom salaries were paid in 1885, — 106. Average yearly salary, \$1,363.
 Number of persons to whom wages were paid in 1885, — 1,728. Average yearly wage, \$450.82.
 Motive power: Increase, 1,256 horse power.

The Growth of Manufactures — Continued.

LUMBER.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	1,137	610	466
Capital invested,	-	-	\$1,015,771	\$2,513,027	\$2,916,634
Value of stock used,	-	-	-	\$1,896,038	\$2,063,973
Persons employed,	2,506	3,413	1,980	1,961	1,892
Wages paid,	-	-	-	\$641,953	\$602,239
Motive power (horse power), . . .	-	-	-	15,599	11,742
Value of goods made,	\$921,106	\$3,664,462	\$2,436,149	\$3,605,713	\$3,627,345

Analysis.

Private firms, 460. Corporations, 6. Total number of establishments in 1885, — 466.
 Oldest existing manufactory established in 1650. Number established since 1875, — 120.
 Oldest existing corporation established in 1870. Original capital stock, \$40,000.
 Capital stock of all corporations at time of incorporation, \$136,500.
 Capital stock of all corporations on June 30, 1885, — \$1,548,900. *Increase* in 1885, — \$1,412,400.
 Partners, 599. Stockholders, 82. Total number of partners and stockholders in 1885, — 681.
 Capital invested: In plant, \$1,645,989. Cash, \$1,066,593. Credit capital (borrowed money), \$204,952.
 Total capital invested in 1885, — \$2,916,634. Total capital invested in 1875, — \$2,513,027.
 Capital invested: *Increase* in 1885 as compared with 1875, — 16.06 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 8.86 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 0.60 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, — 3.52 per cent.
 Number of persons to whom salaries were paid in 1885, — 16. Average yearly salary, \$1,182.
 Number of persons to whom wages were paid in 1885, — 2,218. Average yearly wage, \$271.52.
 Motive power: *Decrease*, 3,857 horse power.

MACHINES AND MACHINERY.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	130	165	258	542	622
Capital invested,	\$1,305,850	\$4,794,500	\$3,672,634	\$13,435,731	\$24,743,677
Value of stock used,	-	-	\$5,190,749	\$5,651,075	\$7,539,470
Persons employed,	2,732	6,707	8,694	9,561	14,644
Wages paid,	-	-	-	\$6,419,271	\$7,249,855
Motive power (horse power), . . .	-	-	-	7,549	9,312½
Value of goods made,	\$2,314,438	\$7,493,590	\$10,206,536	\$16,774,472	\$20,365,970

Analysis.

Private firms, 529. Corporations, 93. Total number of establishments in 1885, — 622.
 Oldest existing manufactory established in 1786. Number established since 1875, — 238.
 Oldest existing corporation established in 1834. Original capital stock, \$30,000.
 Capital stock of all corporations at time of incorporation, \$11,705,500.
 Capital stock of all corporations on June 30, 1885, — \$14,178,500. *Increase* in 1885, — \$2,473,000.
 Partners, 757. Stockholders, 1,771. Total number of partners and stockholders in 1885, — 2,528.
 Capital invested: In plant, \$11,924,744. Cash, \$9,675,660. Credit capital (borrowed money), \$3,143,273.
 Total capital invested in 1885, — \$24,743,677. Total capital invested in 1875, — \$13,435,731.
 Capital invested: *Increase* in 1885 as compared with 1875, — 84.16 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 33.42 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 21.41 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 53.16 per cent.
 Number of persons to whom salaries were paid in 1885, — 605. Average yearly salary, \$1,465.
 Number of persons to whom wages were paid in 1885, — 16,649. Average yearly wage, \$435.45.
 Motive power: *Increase*, 1,763½ horse power.

The Growth of Manufactures — Continued.

METALS AND METALLIC GOODS.

["Cooking, Lighting, and Heating Apparatus," included under the above heading in 1875, was set off as a separate industry in 1885. In order to make a proper comparison between the results below for 1875 and 1885, reference should be made to the figures for 1885 under "Cooking, Lighting, and Heating Apparatus."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	642	878	842	3,473	2,732
Capital invested,	\$4,392,615	\$8,643,050	\$8,004,154	\$21,337,215	\$33,194,607
Value of stock used,	—	—	\$13,480,497	\$17,375,246	\$19,240,584
Persons employed,	5,556	10,788	15,823	17,563	24,233
Wages paid,	—	—	—	\$10,705,780	\$11,303,973
Motive power (horse power), . . .	—	—	—	16,732	25,133
Value of goods made,	\$7,270,883	\$18,707,651	\$22,801,040	\$38,703,720	\$41,332,005

Analysis.

Private firms, 2,633. Corporations, 99. Total number of establishments in 1885, — 2,732. Oldest existing manufactory established in 1639. Number established since 1875, — 1,093. Oldest existing corporation established in 1825. Original capital stock, \$300,000. Capital stock of all corporations at time of incorporation, \$10,514,500. Capital stock of all corporations on June 30, 1885, — \$13,717,200. Increase in 1885, — \$3,202,700. Partners, 3,236. Stockholders, 2,766. Total number of partners and stockholders in 1885, — 6,002. Capital invested: In plant, \$13,453,132. Cash, \$15,195,768. Credit capital (borrowed money), \$1,545,707. Total capital invested in 1885, — \$33,194,607. Total capital invested in 1875, — \$21,337,215. Capital invested: Increase in 1885 as compared with 1875, — 55.57 per cent. Value of stock used: Increase in 1885 as compared with 1875, — 10.74 per cent. Value of goods made: Increase in 1885 as compared with 1875, — 6.79 per cent. Persons employed: Increase in 1885 as compared with 1875, — 37.98 per cent. Number of persons to whom salaries were paid in 1885, — 743. Average yearly salary, \$1,273. Number of persons to whom wages were paid in 1885, — 26,488. Average yearly wage, \$426.76. Motive power: Increase, 8,406 horse power.

MIXED TEXTILES.

[This industry heading was not used in 1885. The figures presented for 1875 were included under "Miscellaneous Manufactures."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	—	—	—	1	13
Capital invested,	—	—	—	\$66,964	\$1,041,835
Value of stock used,	—	—	—	—	\$879,284
Persons employed,	—	—	—	—	675
Wages paid,	—	—	—	—	\$209,362
Motive power (horse power), . . .	—	—	—	—	1,199
Value of goods made,	—	—	—	\$80,357	\$1,323,861

Analysis.

Private firms, 8. Corporations, 5. Total number of establishments in 1885, — 13. Oldest existing manufactory established in 1825. Number established since 1875, — 7. Oldest existing corporation established in 1873. Original capital stock, \$30,000. Capital stock of all corporations at time of incorporation, \$242,000. Capital stock of all corporations on June 30, 1885, — \$257,600. Increase in 1885, — \$15,600. Partners, 11. Stockholders, 43. Total number of partners and stockholders in 1885, — 54. Capital invested: In plant, \$620,615. Cash, \$226,220. Credit capital (borrowed money), \$195,000. Total capital invested in 1885, — \$1,041,835. Total capital invested in 1875, — \$66,964. Capital invested: Increase in 1885 as compared with 1875, — \$974,871. Value of goods made: Increase in 1885 as compared with 1875, — \$1,243,504. Number of persons to whom salaries were paid in 1885, — 21. Average yearly salary, \$1,283. Number of persons to whom wages were paid in 1885, — 719. Average yearly wage, \$291.18.

The Growth of Manufactures—Continued.

MODELS AND PATTERNS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	96	51
Capital invested,	-	-	-	\$100,292	\$97,865
Value of stock used,	-	-	-	-	\$55,083
Persons employed,	-	-	-	-	167
Wages paid,	-	-	-	-	\$92,522
Motive power (horse power), . .	-	-	-	-	85
Value of goods made,	-	-	-	\$270,405	\$258,242

Analysis.

Private firms, 51. Corporations, —. Total number of establishments in 1885, — 51.
 Oldest existing manufactory established in 1848. Number established since 1875, — 27.
 Partners, 56. Stockholders, —. Total number of partners and stockholders in 1885, — 56.
 Capital invested: In plant, \$54,045. Cash, \$38,575. Credit capital (borrowed money), \$5,245.
 Total capital invested in 1885, — \$97,865. Total capital invested in 1875, — \$100,292.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 2.42 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 4.50 per cent.
 Number of persons to whom salaries were paid in 1885, — 1. Average yearly salary, \$1,000.
 Number of persons to whom wages were paid in 1885, — 180. Average yearly wage, \$514.01.

MUSICAL INSTRUMENTS AND MATERIALS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	31	60	78	86	93
Capital invested,	\$293,100	\$1,280,700	\$785,561	\$3,436,406	\$4,950,216
Value of stock used,	-	-	\$764,757	\$1,571,679	\$2,408,944
Persons employed,	427	1,765	1,565	2,249	3,368
Wages paid,	-	-	-	\$1,620,056	\$2,063,229
Motive power (horse power), . .	-	-	-	601	1,429
Value of goods made,	\$548,625	\$2,656,830	\$1,767,111	\$4,929,284	\$6,145,008

Analysis.

Private firms, 82. Corporations, 11. Total number of establishments in 1885, — 93.
 Oldest existing manufactory established in 1823. Number established since 1875, — 24.
 Oldest existing corporation established in 1868. Original capital stock, \$206,000.
 Capital stock of all corporations at time of incorporation, \$1,199,300.
 Capital stock of all corporations on June 30, 1885, — \$1,565,000. *Increase* in 1885, — \$365,700.
 Partners, 112. Stockholders, 167. Total number of partners and stockholders in 1885, — 279.
 Capital invested: In plant, \$2,063,584. Cash, \$1,948,758. Credit capital (borrowed money), \$937,594.
 Total capital invested in 1885, — \$4,950,216. Total capital invested in 1875, — \$3,436,406.
 Capital invested: *Increase* in 1885 as compared with 1875, — 44.05 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 53.27 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 24.66 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 49.76 per cent.
 Number of persons to whom salaries were paid in 1885, — 156. Average yearly salary, \$1,308.
 Number of persons to whom wages were paid in 1885, — 3,334. Average yearly wage, \$615.16.
 Motive power: *Increase*, 829 horse power.

The Growth of Manufactures — Continued.

OILS AND ILLUMINATING FLUIDS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	69	56	31	33	28
Capital invested,	\$2,619,917	\$4,017,513	\$1,200,446	\$2,042,188	\$1,790,401
Value of stock used,	—	—	\$3,670,703	\$4,625,612	\$1,804,617
Persons employed,	377	538	392	673	441
Wages paid,	—	—	—	\$305,987	\$206,250
Motive power (horse power), . . .	—	—	—	980	399
Value of goods made,	\$3,346,483	\$6,955,675	\$5,124,257	\$5,213,294	\$2,294,931

Analysis.

Private firms, 24. Corporations, 4. Total number of establishments in 1885, — 28.
 Oldest existing manufactory established in 1829. Number established since 1875, — 6.
 Oldest existing corporation established in 1855. Original capital stock, \$12,000.
 Capital stock of all corporations at time of incorporation, \$387,000.
 Capital stock of all corporations on June 30, 1885, — \$423,000. Increase in 1885, — \$36,000.
 Partners, 35. Stockholders, 60. Total number of partners and stockholders in 1885, — 95.
 Capital invested: In plant, \$703,617. Cash, \$643,725. Credit capital (borrowed money), \$443,039.
 Total capital invested in 1885, — \$1,790,401. Total capital invested in 1875, — \$2,042,188.
 Capital invested: Decrease in 1885 as compared with 1875, — 12.33 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 60.99 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 55.98 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 34.47 per cent.
 Number of persons to whom salaries were paid in 1885, — 46. Average yearly salary, \$479.
 Number of persons to whom wages were paid in 1885, — 521. Average yearly wage, \$395.87.
 Motive power: Decrease, 581 horse power.

PAINTS, COLORS, AND CRUDE CHEMICALS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	—	—	4	43	22
Capital invested,	—	—	\$31,210	\$2,006,687	\$677,124
Value of stock used,	—	—	\$27,452	\$1,119,259	\$472,088
Persons employed,	—	—	29	304	186
Wages paid,	—	—	—	—	\$91,768
Motive power (horse power), . . .	—	—	—	—	593
Value of goods made,	\$192,000	\$280,340	\$138,981	\$4,039,811	\$763,034

Analysis.

Private firms, 20. Corporations, 2. Total number of establishments in 1885, — 22.
 Oldest existing manufactory established in 1834. Number established since 1875, — 11.
 Oldest existing corporation established in 1852. Original capital stock, \$36,000.
 Capital stock of all corporations at time of incorporation, \$136,000.
 Capital stock of all corporations on June 30, 1885, — \$96,000. Decrease in 1885, — \$40,000.
 Partners, 33. Stockholders, 32. Total number of partners and stockholders in 1885, — 65.
 Capital invested: In plant, \$234,337. Cash, \$283,150. Credit capital (borrowed money), \$159,637.
 Total capital invested in 1885, — \$677,124. Total capital invested in 1875, — \$2,006,687.
 Capital invested: Decrease in 1885 as compared with 1875, — 66.26 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 57.82 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 81.11 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 38.82 per cent.
 Number of persons to whom salaries were paid in 1885, — 30. Average yearly salary, \$1,201.
 Number of persons to whom wages were paid in 1885, — 193. Average yearly wage, \$475.48.

The Growth of Manufactures — Continued.

PAPER AND PAPER GOODS.

[Called "Paper" in 1875. Changed, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	89	121	125	154	148
Capital invested,	\$1,144,537	\$2,564,500	\$2,357,490	\$9,806,523	\$21,979,645
Value of stock used,	-	-	\$3,372,132	\$8,457,131	\$13,377,220
Persons employed,	1,369	2,630	3,578	6,493	8,620
Wages paid,	-	-	-	\$2,477,461	\$3,266,023
Motive power (horse power), . .	-	-	-	17,547	45,779½
Value of goods made,	\$1,750,273	\$4,141,847	\$5,383,301	\$14,334,388	\$21,223,626

Analysis.

Private firms, 90. Corporations, 58. Total number of establishments in 1885, — 148.
 Oldest existing manufactory established in 1770. Number established since 1875, — 53.
 Oldest existing corporation established in 1839. Original capital stock, \$40,000.
 Capital stock of all corporations at time of incorporation, \$6,030,000.
 Capital stock of all corporations on June 30, 1885, — \$7,876,000. Increase in 1885, — \$1,846,000.
 Partners, 166. Stockholders, 1,188. Total number of partners and stockholders in 1885, — 1,354.
 Capital invested: In plant, \$11,650,092. Cash, \$6,716,045. Credit capital (borrowed money), \$3,613,508.
 Total capital invested in 1885, — \$21,979,645. Total capital invested in 1875, — \$9,806,523.
 Capital invested: Increase in 1885 as compared with 1875, — 124.13 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 58.18 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 48.06 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 32.76 per cent.
 Number of persons to whom salaries were paid in 1885, — 284. Average yearly salary, \$1,685.
 Number of persons to whom wages were paid in 1885, — 9,021. Average yearly wage, \$362.05.
 Motive power: Increase, 28,232½ horse power.

PERFUMES, TOILET ARTICLES, ETC.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	20	19
Capital invested,	-	-	-	\$68,524	\$176,972
Value of stock used,	-	-	-	-	\$235,894
Persons employed,	-	-	-	-	47
Wages paid,	-	-	-	-	\$16,391
Motive power (horse power), . .	-	-	-	-	-
Value of goods made,	-	-	-	\$218,244	\$409,801

Analysis.

Private firms, 9. Corporations, 1. Total number of establishments in 1885, — 10.
 Oldest existing manufactory established in 1848. Number established since 1875, — 4.
 Oldest existing corporation established in 1884. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$25,000.
 Capital stock of all corporations on June 30, 1885, — \$25,000. No change in 1885.
 Partners, 15. Stockholders, 3. Total number of partners and stockholders in 1885, — 18.
 Capital invested: In plant, \$64,472. Cash, \$108,300. Credit capital (borrowed money), \$4,200.
 Total capital invested in 1885, — \$176,972. Total capital invested in 1875, — \$68,524.
 Capital invested: Increase in 1885 as compared with 1875, — \$108,448.
 Value of goods made: Increase in 1885 as compared with 1875, — 87.77 per cent.
 Number of persons to whom salaries were paid in 1885, — 8. Average yearly salary, \$1,287.
 Number of persons to whom wages were paid in 1885, — 47. Average yearly wage, \$348.74.

The Growth of Manufactures—Continued.
 PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	134	254	327	241
Capital invested,	-	\$139,875	\$215,376	\$484,714	\$587,058
Value of stock used,	-	-	\$211,403	\$163,935	\$248,224
Persons employed,	-	260	766	347	573
Wages paid,	-	-	-	-	\$247,570
Motive power (horse power), . . .	-	-	-	-	-
Value of goods made,	-	-	\$513,559	\$1,011,900	\$236,165

Analysis.

Private firms, 239. Corporations, 2. Total number of establishments in 1885, — 241.
 Oldest existing manufactory established in 1841. Number established since 1875, — 116.
 Oldest existing corporation established in 1880. Original capital stock, \$100,000.
 Capital stock of all corporations at time of incorporation, \$110,000.
 Capital stock of all corporations on June 30, 1885, — \$110,000. No change in 1885.
 Partners, 238. Stockholders, 13. Total number of partners and stockholders in 1885, — 251.
 Capital invested: In plant, \$304,083. Cash, \$273,275. Credit capital (borrowed money), \$9,700.
 Total capital invested in 1885, — \$587,058. Total capital invested in 1875, — \$484,714.
 Capital invested: *Increase* in 1885 as compared with 1875, — 21.11 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 51.42 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 7.48 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 65.13 per cent.
 Number of persons to whom salaries were paid in 1885, — 22. Average yearly salary, \$464.
 Number of persons to whom wages were paid in 1885, — 605. Average yearly wage, \$409.21.

POLISHES AND DRESSING.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	31	27	65
Capital invested,	-	-	\$81,244	\$263,862	\$1,067,400
Value of stock used,	-	-	-	\$321,256	\$1,025,647
Persons employed,	35	60	100	115	287
Wages paid,	-	-	-	\$45,674	\$206,216
Motive power (horse power), . . .	-	-	-	165	466
Value of goods made,	\$10,422	\$75,800	\$186,218	\$561,063	\$1,788,412

Analysis.

Private firms, 63. Corporations, 2. Total number of establishments in 1885, — 65.
 Oldest existing manufactory established in 1825. Number established since 1875, — 35.
 Oldest existing corporation established in 1851. Original capital stock, \$30,000.
 Capital stock of all corporations at time of incorporation, \$35,000.
 Capital stock of all corporations on June 30, 1885, — \$35,000. No change in 1885.
 Partners, 87. Stockholders, 38. Total number of partners and stockholders in 1885, — 125.
 Capital invested: In plant, \$307,858. Cash, \$607,363. Credit capital (borrowed money), \$152,179.
 Total capital invested in 1885, — \$1,067,400. Total capital invested in 1875, — \$263,862.
 Capital invested: *Increase* in 1885 as compared with 1875, — \$803,538.
 Value of stock used: *Increase* in 1885 as compared with 1875, — \$704,391.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$1,227,349.
 Persons employed: *Increase* in 1885 as compared with 1875, — 172.
 Number of persons to whom salaries were paid in 1885, — 54. Average yearly salary, \$1,012.
 Number of persons to whom wages were paid in 1885, — 316. Average yearly wage, \$652.58.
 Motive power: *Increase*, 301 horse power.

The Growth of Manufactures — Continued.

PRINTING, PUBLISHING, AND BOOKBINDING.

[Called "Printing and Publishing" in 1875. "Bookbinding" transferred from "Occupations," and a separate industry heading, as above, made in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	243	545	712
Capital invested, . . .	-	\$749,550	\$2,076,136	\$5,751,720	\$10,554,003
Value of stock used, . . .	-	-	\$1,001,734	\$3,430,677	\$4,489,319
Persons employed, . . .	-	1,134	3,011	4,360	9,950
Wages paid, . . .	-	-	-	\$2,687,218	\$4,627,116
Motive power (horse power), . . .	-	-	-	1,030	1,695½
Value of goods made, . . .	-	\$1,351,318	\$4,544,955	\$10,861,269	\$16,552,475

Analysis.

Private firms, 650. Corporations, 62. Total number of establishments in 1885, — 712.
 Oldest existing manufactory established in 1639. Number established since 1875, — 301.
 Oldest existing corporation established in 1824.
 Capital stock of all corporations at time of incorporation, \$2,005,500.
 Capital stock of all corporations on June 30, 1885, — \$1,913,300. *Decrease* in 1885, — \$92,200.
 Partners, 934. Stockholders, 1,888. Total number of partners and stockholders in 1885, — 2,822.
 Capital invested: In plant, \$5,973,025. Cash, \$3,066,099. Credit capital (borrowed money), \$1,514,879.
 Total capital invested in 1885, — \$10,554,003. Total capital invested in 1875, — \$5,751,720.
 Capital invested: *Increase* in 1885 as compared with 1875, — 83.49 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 30.86 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 52.40 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 5,590.
 Number of persons to whom salaries were paid in 1885, — 1,269. Average yearly salary, \$929.
 Number of persons to whom wages were paid in 1885, — 10,484. Average yearly wage, \$441.35.
 Motive power: *Increase*, 665½ horse power.

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

[Called "Print Works" in 1875. "Dyeing" and "Bleaching" transferred from "Occupations," and a separate industry heading, as above, made in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	23	17	11	102	96
Capital invested, . . .	\$1,602,000	\$2,639,000	\$2,617,834	\$2,564,958	\$16,191,410
Value of stock used, . . .	-	-	\$7,490,697	\$1,723,236	\$15,403,791
Persons employed, . . .	2,264	1,801	4,130	3,199	8,601
Wages paid, . . .	-	-	-	\$194,084	\$2,873,711
Motive power (horse power), . . .	-	-	-	11,239	20,775
Value of goods made and work done, . . .	\$6,945,817	\$10,324,200	\$15,245,396	\$3,895,695	\$15,880,843

Analysis.

Private firms, 80. Corporations, 16. Total number of establishments in 1885, — 96.
 Oldest existing manufactory established in 1804. Number established since 1875, — 34.
 Oldest existing corporation established in 1813. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$3,062,000.
 Capital stock of all corporations on June 30, 1885, — \$7,287,000. *Increase* in 1885, — \$4,225,000.
 Partners, 107. Stockholders, 1,197. Total number of partners and stockholders in 1885, — 1,304.
 Capital invested: In plant, \$8,159,112. Cash, \$3,058,982. Credit capital (borrowed money), \$4,973,316.
 Total capital invested in 1885, — \$16,191,410. Total capital invested in 1875, — \$2,564,958.
 Capital invested: *Increase* in 1885 as compared with 1875, — 130. *Average* yearly salary, \$1,857.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 13.626,452.
 Value of goods made: *Increase* in 1885 as compared with 1875, — \$11,985,148.
 Persons employed: *Increase* in 1885 as compared with 1875, — 5,402.
 Number of persons to whom salaries were paid in 1885, — 130. *Average* yearly salary, \$1,857.
 Number of persons to whom wages were paid in 1885, — 8,971. *Average* yearly wage, \$320.33.
 Motive power: *Increase*, 9,536 horse power.

The Growth of Manufactures—Continued.

RAILROAD CONSTRUCTION.

[Will be designated, in future, as "Railroad Construction and Equipment."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	2	22	15
Capital invested,	-	-	\$6,051	\$1,027,835	\$1,598,373
Value of stock used,	-	-	\$20,187	\$1,033,162	\$1,046,491
Persons employed,	-	-	22	537	1,786
Wages paid,	-	-	-	\$254,166	\$906,596
Motive power (horse power), . .	-	-	-	615	750
Value of goods made,	-	-	\$32,948	\$1,831,283	\$2,158,224

Analysis.

Private firms, 5. Corporations, 10. Total number of establishments in 1885, — 15.
 Oldest existing manufactory established in 1832. Number established since 1875, — 2.
 Oldest existing corporation established in 1831.
 Capital stock of all corporations at time of incorporation, \$192,000.
 Capital stock of all corporations on June 30, 1885, — \$1,150,000. Increase in 1885, — \$958,000.
 Partners, 7. Stockholders, 494. Total number of partners and stockholders in 1885, — 501.
 Capital invested: In plant, \$1,125,373. Cash, \$273,000. Credit capital (borrowed money), \$200,000.
 Total capital invested in 1885, — \$1,598,373. Total capital invested in 1875, — \$1,027,835.
 Capital invested: Increase in 1885 as compared with 1875, — 55.51 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 1.29 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 17.85 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 1,249.
 Number of persons to whom salaries were paid in 1885, — 60. Average yearly salary, \$971.
 Number of persons to whom wages were paid in 1885, — 1,843. Average yearly wage, \$491.91.
 Motive power: Increase, 135 horse power.

RUBBER AND ELASTIC GOODS.

[Called "Rubber" in 1875. Changed, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	5	16	33	41
Capital invested,	-	\$438,000	\$1,032,484	\$4,655,988	\$10,893,079
Value of stock used,	-	-	\$1,277,747	\$2,816,709	\$7,873,240
Persons employed,	-	462	1,062	2,195	6,469
Wages paid,	-	-	-	\$406,554	\$2,285,165
Motive power (horse power), . .	-	-	-	1,570	4,265
Value of goods made,	-	\$968,000	\$1,808,936	\$6,508,096	\$12,638,741

Analysis.

Private firms, 24. Corporations, 17. Total number of establishments in 1885, — 41.
 Oldest existing manufactory established in 1828. Number established since 1875, — 26.
 Oldest existing corporation established in 1845. Original capital stock, \$100,000.
 Capital stock of all corporations at time of incorporation, \$1,807,500.
 Capital stock of all corporations on June 30, 1885, — \$5,332,500. Increase in 1885, — \$3,515,000.
 Partners, 39. Stockholders, 708. Total number of partners and stockholders in 1885, — 747.
 Capital invested: In plant, \$3,503,689. Cash, \$3,534,674. Credit capital (borrowed money), \$3,854,716.
 Total capital invested in 1885, — \$10,893,079. Total capital invested in 1875, — \$4,655,988.
 Capital invested: Increase in 1885 as compared with 1875, — \$6,237,091.
 Value of stock used: Increase in 1885 as compared with 1875, — \$5,056,531.
 Value of goods made: Increase in 1885 as compared with 1875, — 94.20 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 4,274.
 Number of persons to whom salaries were paid in 1885, — 114. Average yearly salary, \$1,500.
 Number of persons to whom wages were paid in 1885, — 6,533. Average yearly wage, \$349.79.
 Motive power: Increase, 2,695 horse power.

The Growth of Manufactures — Continued.

SALT.

[Included under "Food Preparations" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	-	5
Capital invested,	-	-	-	-	\$30,940
Value of stock used,	-	-	-	-	\$40,034
Persons employed,	-	-	-	-	17
Wages paid,	-	-	-	-	\$8,690
Motive power (horse power), . . .	-	-	-	-	30
Value of goods made,	-	-	-	-	\$46,890

Analysis.

Private firms, 5. Corporations, —. Total number of establishments in 1885, — 5.

Oldest existing manufactory established in 1790.

Partners, 5. Stockholders, —. Total number of partners and stockholders in 1885, — 5.

Capital invested: In plant, \$19,440. Cash, \$11,500.

Total capital invested in 1885, — \$30,940.

Number of persons to whom wages were paid in 1885, — 34. Average yearly wage, \$255.59.

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

["Electrical Apparatus and Appliances," included under the above heading in 1875, was set off as a separate industry in 1885. In order to make a proper comparison between the results given below for 1875 and 1885, reference should be made to the figures for 1885 under "Electrical Apparatus and Appliances."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	-	-	24	61	65
Capital invested,	-	-	\$98,344	\$393,581	\$807,745
Value of stock used,	-	-	\$128,825	\$239,899	\$545,153
Persons employed,	68	76	190	367	775
Wages paid,	-	-	-	\$188,152	\$314,566
Motive power (horse power), . . .	-	-	-	219	303½
Value of goods made,	\$54,050	\$204,850	\$267,803	\$581,027	\$1,227,683

Analysis.

Private firms, 60. Corporations, 5. Total number of establishments in 1885, — 65.

Oldest existing manufactory established in 1770. Number established since 1875, — 21.

Oldest existing corporation established in 1869. Original capital stock, \$40,000.

Capital stock of all corporations at time of incorporation, \$91,600.

Capital stock of all corporations on June 30, 1885, — \$131,500. Increase in 1885, — \$40,000.

Partners, 82. Stockholders, 124. Total number of partners and stockholders in 1885, — 206.

Capital invested: In plant, \$277,489. Cash, \$471,606. Credit capital (borrowed money), \$58,650.

Total capital invested in 1885, — \$807,745. Total capital invested in 1875, — \$393,581.

Capital invested: Increase in 1885 as compared with 1875, — 105.23 per cent.

Value of stock used: Increase in 1885 as compared with 1875, — \$305,254.

Value of goods made: Increase in 1885 as compared with 1875, — 111.30 per cent.

Persons employed: Increase in 1885 as compared with 1875, — 111.17 per cent.

Number of persons to whom salaries were paid in 1885, — 35. Average yearly salary, \$1,139.

Number of persons to whom wages were paid in 1885, — 779. Average yearly wage, \$403.81.

Motive power: Increase, 84½ horse power.

The Growth of Manufactures—Continued.

SHIPBUILDING.

[Called "Vessels" in 1875. Changed, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	281	319	279
Capital invested,	-	\$2,367,200	\$949,293	\$1,138,138	\$1,101,448
Value of stock used,	-	-	\$2,654,235	\$1,674,488	\$814,633
Persons employed,	1,385	5,198	2,424	1,454	1,534
Wages paid,	-	-	-	\$891,438	\$648,456
Motive power (horse power), . .	-	-	-	333	356
Value of goods made,	\$1,382,339	\$1,235,809	\$4,435,323	\$4,522,309	\$2,107,986

Analysis.

Private firms, 278. Corporations, 1. Total number of establishments in 1885, —279.
 Oldest existing manufactory established in 1733. Number established since 1875, —77.
 Oldest existing corporation established in 1885. Original capital stock, \$150,000.
 Capital stock of all corporations at time of incorporation, \$150,000.
 Capital stock of all corporations on June 30, 1885, —\$150,000. No change in 1885.
 Partners, 350. Stockholders, 8. Total number of partners and stockholders in 1885, —358.
 Capital invested: In plant, \$474,750. Cash, \$561,098. Credit capital (borrowed money), \$65,600.
 Total capital invested in 1885, —\$1,101,448. Total capital invested in 1875, —\$1,138,138.
 Capital invested: *Decrease* in 1885 as compared with 1875, —3.22 per cent.
 Value of stock used: *Decrease* in 1885 as compared with 1875, —51.35 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, —53.39 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, —5.50 per cent.
 Number of persons to whom salaries were paid in 1885, —19. Average yearly salary, \$1,074.
 Number of persons to whom wages were paid in 1885, —2,681. Average yearly wage, \$241.87.
 Motive power: *Increase*, 23 horse power.

SILK AND SILK GOODS.

[Called "Silk" in 1875. Changed, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	8	5	9	6	12
Capital invested,	\$38,000	\$55,000	\$129,936	\$435,714	\$1,841,487
Value of stock used,	-	-	\$498,279	\$902,506	\$2,175,462
Persons employed,	156	138	503	860	2,126
Wages paid,	-	-	-	\$234,779	\$618,854
Motive power (horse power), . .	-	-	-	-	1,513
Value of goods made,	\$150,477	\$300,000	\$751,146	\$1,644,821	\$3,501,240

Analysis.

Private firms, 6. Corporations, 6. Total number of establishments in 1885, —12.
 Oldest existing manufactory established in 1838. Number established since 1875, —6.
 Oldest existing corporation established in 1865. Original capital stock, \$75,000.
 Capital stock of all corporations at time of incorporation, \$1,096,000.
 Capital stock of all corporations on June 30, 1885, —\$1,443,280. *Increase* in 1885, —\$347,280.
 Partners, 9. Stockholders, 158. Total number of partners and stockholders in 1885, —167.
 Capital invested: In plant, \$621,370. Cash, \$608,015. Credit capital (borrowed money), \$611,602.
 Total capital invested in 1885, —\$1,841,487. Total capital invested in 1875, —\$435,714.
 Capital invested: *Increase* in 1885 as compared with 1875, —\$1,405,773.
 Value of stock used: *Increase* in 1885 as compared with 1875, —\$1,272,956.
 Value of goods made: *Increase* in 1885 as compared with 1875, —112.86 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, —1,266.
 Number of persons to whom salaries were paid in 1885, —32. Average yearly salary, \$1,196.
 Number of persons to whom wages were paid in 1885, —2,253. Average yearly wage, \$274.68.

The Growth of Manufactures — Continued.

SPORTING AND ATHLETIC GOODS.

[Included, in 1875, partly under "Wooden Goods" and partly under "Miscellaneous Manufactures." The figures presented for 1875 were drawn from "Miscellaneous Manufactures." Made a separate industry heading, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	3	27
Capital invested,	-	-	-	\$4,687	\$376,012
Value of stock used,	-	-	-	-	\$347,306
Persons employed,	-	-	-	-	530
Wages paid,	-	-	-	-	\$225,337
Motive power (horse power), . .	-	-	-	-	254
Value of goods made,	-	-	-	\$6,562	\$1,079,966

Analysis.

Private firms, 25. Corporations, 2. Total number of establishments in 1885, — 27.
 Oldest existing manufactory established in 1823. Number established since 1875, — 15.
 Oldest existing corporation established in 1833. Original capital stock, \$100,000.
 Capital stock of all corporations at time of incorporation, \$101,200.
 Capital stock of all corporations on June 30, 1885, — \$203,000. Increase in 1885, — \$101,800.
 Partners, 36. Stockholders, 78. Total number of partners and stockholders in 1885, — 114.
 Capital invested: In plant, \$161,863. Cash, \$170,849. Credit capital (borrowed money), \$43,300.
 Total capital invested in 1885, — \$376,012. Total capital invested in 1875, — \$4,687.
 Capital invested: Increase in 1885 as compared with 1875, — \$371,325.
 Value of goods made: Increase in 1885 as compared with 1875, — \$1,073,404.
 Number of persons to whom salaries were paid in 1885, — 14. Average yearly salary, \$836.
 Number of persons to whom wages were paid in 1885, — 863. Average yearly wage, \$261.11.

STONE.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	128	298	378
Capital invested,	-	-	\$265,889	\$2,046,831	\$3,846,230
Value of stock used,	-	-	\$267,059	\$1,003,320	\$1,585,907
Persons employed,	2,161	2,660	913	2,553	6,111
Wages paid,	-	-	-	\$2,222,271	\$2,701,463
Motive power (horse power), . .	-	-	-	775	1,774
Value of goods made,	\$1,285,603	\$2,146,863	\$699,310	\$4,215,307	\$5,508,569

Analysis.

Private firms, 366. Corporations, 12. Total number of establishments in 1885, — 378.
 Oldest existing manufactory established in 1802. Number established since 1875, — 152.
 Oldest existing corporation established in 1826. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$757,000.
 Capital stock of all corporations on June 30, 1885, — \$987,370. Increase in 1885, — \$230,370.
 Partners, 527. Stockholders, 598. Total number of partners and stockholders in 1885, — 1,125.
 Capital invested: In plant, \$2,221,796. Cash, \$1,404,922. Credit capital (borrowed money), \$219,512.
 Total capital invested in 1885, — \$3,846,230. Total capital invested in 1875, — \$2,046,831.
 Capital invested: Increase in 1885 as compared with 1875, — 87.91 per cent.
 Value of stock used: Increase in 1885 as compared with 1875, — 58.07 per cent.
 Value of goods made: Increase in 1885 as compared with 1875, — 30.68 per cent.
 Persons employed: Increase in 1885 as compared with 1875, — 3,558.
 Number of persons to whom salaries were paid in 1885, — 85. Average yearly salary, \$1,091.
 Number of persons to whom wages were paid in 1885, — 6,801. Average yearly wage, \$397.22.
 Motive power: Increase, 999 horse power.

The Growth of Manufactures—Continued.

STRAW AND PALM LEAF GOODS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	—	42	99	50	47
Capital invested,	—	—	\$788,531	\$4,729,611	\$3,001,427
Value of stock used,	—	—	\$1,994,079	\$2,867,017	\$3,837,366
Persons employed,	13,311	14,511	13,501	5,004	4,647
Wages paid,	—	—	—	—	\$1,370,436
Motive power (horse power), . . .	—	—	—	—	1,863
Value of goods made,	\$1,649,496	\$3,713,375	\$3,114,113	\$10,675,311	\$6,265,287

Analysis.

Private firms, 45. Corporations, 2. Total number of establishments in 1885, — 47.
 Oldest existing manufactory established in 1827. Number established since 1875, — 12.
 Oldest existing corporation established in 1856. Original capital stock, \$500,000.
 Capital stock of all corporations at time of incorporation, \$550,000.
 Capital stock of all corporations on June 30, 1885, — \$330,000. *Decrease* in 1885, — \$220,000.
 Partners, 74. Stockholders, 21. Total number of partners and stockholders in 1885, — 95.
 Capital invested: In plant, \$1,100,073. Cash, \$1,041,902. Credit capital (borrowed money), \$859,452.
 Total capital invested in 1885, — \$3,001,427. Total capital invested in 1875, — \$4,729,611.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 36.54 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 33.85 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 41.31 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, — 7.13 per cent.
 Number of persons to whom salaries were paid in 1885, — 158. Average yearly salary, \$972.
 Number of persons to whom wages were paid in 1885, — 6,497. Average yearly wage, \$210.93.

TALLOW, CANDLES, SOAP, AND GREASE.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments,	109	114	189	251	155
Capital invested,	\$405,872	\$1,582,500	\$402,322	\$2,651,491	\$1,569,198
Value of stock used,	—	—	\$869,569	\$2,104,458	\$2,370,912
Persons employed,	343	445	504	451	734
Wages paid,	—	—	—	—	\$330,199
Motive power (horse power), . . .	—	—	—	—	1,882
Value of goods made,	\$836,156	\$7,720,533	\$1,226,327	\$5,932,204	\$3,474,890

Analysis.

Private firms, 152. Corporations, 3. Total number of establishments in 1885, — 155.
 Oldest existing manufactory established in 1816. Number established since 1875, — 43.
 Oldest existing corporation established in 1880. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$200,000.
 Capital stock of all corporations on June 30, 1885, — \$200,000. No change in 1885.
 Partners, 211. Stockholders, 17. Total number of partners and stockholders in 1885, — 223.
 Capital invested: In plant, \$684,167. Cash, \$607,498. Credit capital (borrowed money), \$277,533.
 Total capital invested in 1885, — \$1,569,198. Total capital invested in 1875, — \$2,651,491.
 Capital invested: *Decrease* in 1885 as compared with 1875, — 40.82 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 12.66 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 41.42 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 62.75 per cent.
 Number of persons to whom salaries were paid in 1885, — 23. Average yearly salary, \$1,381.
 Number of persons to whom wages were paid in 1885, — 754. Average yearly wage, \$437.93.

The Growth of Manufactures—Continued.

TOBACCO, SNUFF, AND CIGARS.

[Called "Tobacco" in 1875. Changed, as above, in 1885.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	268	302
Capital invested,	-	-	\$250,979	\$730,443	\$1,083,908
Value of stock used,	-	-	\$359,930	\$927,312	\$1,341,698
Persons employed,	572	775	855	1,350	2,063
Wages paid,	-	-	-	\$610,196	\$860,553
Motive power (horse power), . .	-	-	-	123	75
Value of goods made,	\$324,639	\$988,790	\$675,103	\$2,403,896	\$2,813,084

Analysis.

Private firms, 298. Corporations, 4. Total number of establishments in 1885, — 302.
 Oldest existing manufactory established in 1800. Number established since 1875, — 182.
 Oldest existing corporation established in 1873. Original capital stock, \$30,000.
 Capital stock of all corporations at time of incorporation, \$150,000.
 Capital stock of all corporations on June 30, 1885, — \$210,000. *Increase* in 1885, — \$60,000.
 Partners, 353. Stockholders, 31. Total number of partners and stockholders in 1885, — 389.
 Capital invested: In plant, \$149,133. Cash, \$732,089. Credit capital (borrowed money), \$202,636.
 Total capital invested in 1885, — \$1,083,908. Total capital invested in 1875, — \$730,443.
 Capital invested: *Increase* in 1885 as compared with 1875, — 48.39 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, — 44.69 per cent.
 Value of goods made: *Increase* in 1885 as compared with 1875, — 17.02 per cent.
 Persons employed: *Increase* in 1885 as compared with 1875, — 52.07 per cent.
 Number of persons to whom salaries were paid in 1885, — 64. Average yearly salary, \$1,231.
 Number of persons to whom wages were paid in 1885, — 2,202. Average yearly wage, \$390.81.
 Motive power: *Decrease*, 48 horse power.

TOYS AND GAMES (CHILDREN'S).

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	17	15
Capital invested,	-	-	-	\$283,750	\$295,985
Value of stock used,	-	-	-	-	\$114,642
Persons employed,	-	-	-	-	325
Wages paid,	-	-	-	-	\$118,825
Motive power (horse power), . .	-	-	-	-	250
Value of goods made,	-	-	-	\$322,017	\$316,895

Analysis.

Private firms, 13. Corporations, 2. Total number of establishments in 1885, — 15.
 Oldest existing manufactory established in 1835. Number established since 1875, — 6.
 Oldest existing corporation established in 1881. Original capital stock, \$25,000.
 Capital stock of all corporations at time of incorporation, \$65,000.
 Capital stock of all corporations on June 30, 1885, — \$65,000. *No change* in 1885.
 Partners, 19. Stockholders, 11. Total number of partners and stockholders in 1885, — 30.
 Capital invested: In plant, \$119,375. Cash, \$128,840. Credit capital (borrowed money), \$47,570.
 Total capital invested in 1885, — \$295,985. Total capital invested in 1875, — \$283,750.
 Capital invested: *Increase* in 1885 as compared with 1875, — 4.31 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, — 1.59 per cent.
 Number of persons to whom salaries were paid in 1885, — 9. Average yearly salary, \$1,400.
 Number of persons to whom wages were paid in 1885, — 345. Average yearly wage, \$344.42.

The Growth of Manufactures—Continued.

TRUNKS AND VALISES.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	-	22	25
Capital invested,	-	-	-	\$176,027	\$128,630
Value of stock used,	-	-	-	-	\$183,962
Persons employed,	-	-	-	-	198
Wages paid,	-	-	-	-	\$78,864
Motive power (horse power), . .	-	-	-	-	56
Value of goods made,	-	-	-	\$693,103	\$346,720

Analysis.

Private firms, 25. Corporations, —. Total number of establishments in 1885, —25.
 Oldest existing manufactory established in 1833. Number established since 1875, —13.
 Partners, 34. Stockholders, —. Total number of partners and stockholders in 1885, —34.
 Capital invested: In plant, \$16,385. Cash, \$93,045. Credit capital (borrowed money), \$13,200.
 Total capital invested in 1885, —\$128,630. Total capital invested in 1875, —\$176,027.
 Capital invested: *Decrease* in 1885 as compared with 1875, —26.93 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, —49.98 per cent.
 Number of persons to whom salaries were paid in 1885, —6. Average yearly salary, \$455.
 Number of persons to whom wages were paid in 1885, —229. Average yearly wage, \$344.38.

WHIPS, LASHES, AND STOCKS.

[Included under "Miscellaneous Manufactures" in 1875.]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	-	40	110	60
Capital invested,	-	-	\$118,854	\$1,100,679	\$919,590
Value of stock used,	-	-	\$215,159	\$342,865	\$349,392
Persons employed,	526	367	476	626	562
Wages paid,	-	-	-	-	\$222,865
Motive power (horse power), . .	-	-	-	-	166
Value of goods made,	\$111,947	\$503,500	\$400,001	\$1,654,189	\$1,052,401

Analysis.

Private firms, 56. Corporations, 4. Total number of establishments in 1885, —60.
 Oldest existing manufactory established in 1826. Number established since 1875, —29.
 Oldest existing corporation established in 1855. Original capital stock, \$250,000.
 Capital stock of all corporations at time of incorporation, \$330,000.
 Capital stock of all corporations on June 30, 1885, —\$380,000. *Increase* in 1885, —\$50,000.
 Partners, 84. Stockholders, 65. Total number of partners and stockholders in 1885, —149.
 Capital invested: In plant, \$233,152. Cash, \$512,518. Credit capital (borrowed money), \$173,920.
 Total capital invested in 1885, —\$919,590. Total capital invested in 1875, —\$1,100,679.
 Capital invested: *Decrease* in 1885 as compared with 1875, —16.45 per cent.
 Value of stock used: *Increase* in 1885 as compared with 1875, —1.90 per cent.
 Value of goods made: *Decrease* in 1885 as compared with 1875, —36.38 per cent.
 Persons employed: *Decrease* in 1885 as compared with 1875, —10.22 per cent.
 Number of persons to whom salaries were paid in 1885, —71. Average yearly salary, \$1,210.
 Number of persons to whom wages were paid in 1885, —616. Average yearly wage, \$361.79.

The Growth of Manufactures — Continued.

WOODEN GOODS.

["Bungs and Taps," included in 1885 under "Corks, Bungs, and Taps," and "Sporting and Athletic Goods," in part, (each being, now, a separate industry) were included under the above heading in 1875. In order to make a proper comparison between the results given below for 1875 and 1885, reference should be made to the figures for 1885 under "Corks, Bungs, and Taps" and "Sporting and Athletic Goods."]

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	-	109	487	618	534
Capital invested,	-	\$328,980	\$1,010,108	\$4,199,548	\$3,263,813
Value of stock used,	-	-	\$1,159,637	\$3,239,186	\$1,933,440
Persons employed,	1,592	1,822	2,688	4,267	3,344
Wages paid,	-	-	-	\$2,094,621	\$1,450,655
Motive power (horse power), . . .	-	-	-	6,726	5,726½
Value of goods made,	\$964,833	\$2,271,923	\$2,157,668	\$7,072,447	\$4,767,726

Analysis.

Private firms, 528. Corporations, 6. Total number of establishments in 1885, — 534.
 Oldest existing manufactory established in 1800. Number established since 1875, — 192.
 Oldest existing corporation established in 1792. Original capital stock, \$50,000.
 Capital stock of all corporations at time of incorporation, \$345,000.
 Capital stock of all corporations on June 30, 1885, — \$410,000. Increase in 1885, — \$65,000.
 Partners, 669. Stockholders, 82. Total number of partners and stockholders in 1885, — 751.
 Capital invested: In plant, \$1,564,072. Cash, \$1,346,236. Credit capital (borrowed money), \$353,505.
 Total capital invested in 1885, — \$3,263,813. Total capital invested in 1875, — \$4,199,548.
 Capital invested: Decrease in 1885 as compared with 1875, — 22.28 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 40.31 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 32.59 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 21.63 per cent.
 Number of persons to whom salaries were paid in 1885, — 108. Average yearly salary, \$691.
 Number of persons to whom wages were paid in 1885, — 3,674. Average yearly wage, \$394.84.
 Motive power: Decrease, 99½ horse power.

WOOLLEN GOODS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	178	146	266	242	180
Capital invested,	\$5,604,002	\$7,305,500	\$9,477,276	\$15,800,437	\$29,995,668
Value of stock used,	-	-	\$22,746,593	\$21,471,327	\$19,422,953
Persons employed,	7,372	10,090	18,965	19,193	18,970
Wages paid,	-	-	-	\$5,542,015	\$5,688,981
Motive power (horse power), . . .	-	-	-	21,917	23,249
Value of goods made,	\$8,877,478	\$12,105,512	\$31,550,081	\$36,469,626	\$31,748,278

Analysis.

Private firms, 151. Corporations, 38. Total number of establishments in 1885, — 189.
 Oldest existing manufactory established in 1804. Number established since 1875, — 67.
 Oldest existing corporation established in 1826. Original capital stock, \$240,000.
 Capital stock of all corporations at time of incorporation, \$4,374,075.
 Capital stock of all corporations on June 30, 1885, — \$6,835,432. Increase in 1885, — \$2,461,357.
 Partners, 250. Stockholders, 939. Total number of partners and stockholders in 1885, — 1,189.
 Capital invested: In plant, \$13,277,401. Cash, \$10,461,325. Credit capital (borrowed money), \$6,256,942.
 Total capital invested in 1885, — \$29,995,668. Total capital invested in 1875, — \$15,800,437.
 Capital invested: Increase in 1885 as compared with 1875, — 89.84 per cent.
 Value of stock used: Decrease in 1885 as compared with 1875, — 9.54 per cent.
 Value of goods made: Decrease in 1885 as compared with 1875, — 12.95 per cent.
 Persons employed: Decrease in 1885 as compared with 1875, — 1.16 per cent.
 Number of persons to whom salaries were paid in 1885, — 725. Average yearly salary, \$777.
 Number of persons to whom wages were paid in 1885, — 19,507. Average yearly wage, \$291.64.
 Motive power: Increase, 1,332 horse power.

The Growth of Manufactures — Concluded.

WORSTED GOODS.

CLASSIFICATION.	1845	1855	1865	1875	1885
Number of establishments, . . .	10	7	8	14	23
Capital invested,	\$514,000	\$1,236,000	\$477,389	\$1,511,607	\$10,706,896
Value of stock used,	—	—	\$1,100,929	\$1,681,233	\$6,708,076
Persons employed,	846	1,062	932	1,499	7,963
Wages paid,	—	—	—	\$491,293	\$2,439,498
Motive power (horse power), . . .	—	—	—	1,820	10,031
Value of goods made,	\$654,566	\$1,448,740	\$1,397,869	\$2,670,723	\$11,198,148

Analysis.

Private firms, 15. Corporations, 8. Total number of establishments in 1885, — 23.
 Oldest existing manufactory established in 1852. Number established since 1875, — 11.
 Oldest existing corporation established in 1850. Original capital stock, \$350,000.
 Capital stock of all corporations at time of incorporation, \$1,334,000.
 Capital stock of all corporations on June 30, 1885, — \$2,410,000. Increase in 1885, — \$1,076,000.
 Partners, 24. Stockholders, 243. Total number of partners and stockholders in 1885, — 267.
 Capital invested: In plant, \$4,695,923. Cash, \$2,519,896. Credit capital (borrowed money), \$3,491,077.
 Total capital invested in 1885, — \$10,706,896. Total capital invested in 1875, — \$1,511,607.
 Capital invested: Increase in 1885 as compared with 1875, — \$9,195,289.
 Value of stock used: Increase in 1885 as compared with 1875, — \$5,026,843.
 Value of goods made: Increase in 1885 as compared with 1875, — \$8,527,425.
 Persons employed: Increase in 1885 as compared with 1875, — 6,464.
 Number of persons to whom salaries were paid in 1885, — 60. Average yearly salary, \$1,617.
 Number of persons to whom wages were paid in 1885, — 8,341. Average yearly wage, \$292.47.
 Motive power: Increase, 8,211 horse power.

COMPARISONS FOR THE CENSUS YEARS 1875 AND 1885.

The incomplete enumeration in some years, and the variations in classification previously referred to, render it impossible to make general comparisons, for all industries, between the various years. We present, however, a table showing the relative importance of private firms and corporations in the Census year 1885, and comparative tables, on the basis of *gold values*, as regards capital invested, value of stock used, total wages paid, and value of goods made and work done in the Census years 1875 and 1885. We also give comparative tables, for the same years, relating to persons employed, motive power, and machinery.

The comparative results for private firms and corporations, with percentage equivalents, appear in the following table:

Relative Importance of Private Firms and Corporations. Numbers and Percentages. From the Census of 1885.

CLASSIFICATION.	NUMBERS, VALUES, ETC.		PERCENTAGES	
	Private Firms	Corporations	Private Firms	Corporations
Number of establishments,	22,482	949	95.95	4.05
Number of partners and stockholders,	28,294	42,731	39.84	60.16
Amount of capital invested,	\$199,944,619	\$300,649,758	39.94	60.06
Value of stock used,	\$247,579,732	\$142,177,726	63.52	36.48
Value of goods made and work done,	\$437,124,193	\$237,510,076	64.79	35.21
Number of persons employed June 30, 1885,	226,684	152,644	59.76	40.24
Number of persons employed during the year ending June 30, 1885,	257,656	162,310	61.35	38.65
Total wages paid,	\$93,330,264	\$54,085,052	63.31	36.69

The private firms represent the greatest number of establishments, the greatest values of stock used and goods made, the greatest number of persons employed and total wages paid. There are more stockholders than partners, and the corporations have the greatest amount of capital invested.

We next present a comparison, as regards capital invested, for the Census years 1875 and 1885, the currency values of 1875 being reduced to *gold values*. We show the increase or decrease in 1885, and also the percentages of increase or decrease for the 15 principal industries, 68 industries being included in the line "Other Industries."

Amount of Capital Invested.

INDUSTRIES.	CAPITAL INVESTED		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875 *	1885		
Boots and shoes,	\$16,690,057	\$34,313,421	+\$17,623,364	+105.59
Building,	1,325,040	11,292,199	+9,967,159	+752.22
Clothing,	8,200,738	12,399,808	+4,199,070	+51.20
Cotton goods,	57,004,204	118,947,040	+61,942,836	+108.66
Food preparations,	8,795,053	20,832,706	+12,037,653	+136.87
Furniture,	4,419,634	9,313,557	+4,893,923	+110.73
Leather,	7,499,866	12,258,831	+4,758,965	+63.45
Machines and machinery,	12,374,659	24,743,677	+12,369,018	+99.95
Metals and metallic goods,	19,560,538	33,194,607	+13,634,069	+69.70
Paper and paper goods,	9,696,679	21,979,645	+12,282,966	+126.67
Printing, publishing, and bookbinding,	5,726,274	10,554,003	+4,827,729	+84.31
Print works, dye works, and bleacheries,	2,294,643	16,191,410	+13,896,767	+605.62
Rubber and elastic goods,	3,111,345	10,893,079	+7,781,734	+250.11
Woollen goods,	15,366,054	29,995,668	+14,629,614	+95.21
Worsted goods,	1,511,607	10,706,896	+9,195,289	+608.31
Other industries,	78,819,786	122,977,830	+44,158,044	+56.02
ALL INDUSTRIES,	\$252,396,177	\$500,594,377	+\$248,198,200	+98.34

* Currency reduced to gold values.

The next comparative table, relating to stock used, covers the 15 principal industries, the remaining industries being included in the line "Other Industries."

Value of Stock Used.

INDUSTRIES.	VALUE OF STOCK USED		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875 *	1885		
Boots and shoes,	\$49,086,164	\$70,178,677	+\$21,092,513	+42.97
Building,	3,081,737	18,388,452	+15,306,715	+496.69
Clothing,	15,547,270	17,775,263	+2,227,993	+14.33
Cotton goods,	36,660,619	36,625,530	-35,089	-0.10
Food preparations,	28,443,102	62,742,977	+34,299,875	+120.59
Furniture,	3,392,303	5,940,631	+2,548,328	+75.12
Leather,	14,382,897	19,713,559	+5,330,662	+37.06
Machines and machinery,	5,651,075	7,539,470	+1,888,395	+33.42
Metals and metallic goods,	17,375,245	19,240,584	+1,865,339	+10.74
Paper and paper goods,	8,457,131	13,377,220	+4,920,089	+58.18
Printing, publishing, and bookbinding,	3,430,677	4,489,319	+1,058,642	+30.86
Print works, dye works, and bleacheries,	1,723,236	15,403,791	+13,680,555	+793.89
Rubber and elastic goods,	1,899,464	7,873,240	+5,973,776	+314.50
Woollen goods,	21,078,179	19,422,953	-1,655,226	-7.85
Worsted goods,	1,681,233	6,708,076	+5,026,843	+299.00
Other industries,	51,470,003	64,337,716	+12,867,713	+25.00
ALL INDUSTRIES,	\$263,360,335	\$389,757,458	+\$126,397,123	+47.99

* Currency reduced to gold values.

The third comparison is for persons employed, 15 industries being given in detail and the remaining 68 included in the line "Other Industries."

Number of Persons Employed.

INDUSTRIES.	PERSONS EMPLOYED		Increase (+), or Decrease (-), in 1885	Percentages
	1875	1885		
Boots and shoes,	48,090	64,858	+16,768	+34.87
Building,	4,033	27,873	+23,840	+591.12
Clothing,	13,702	18,325	+4,623	+33.74
Cotton goods,	60,176	60,132	-44	-0.07
Food preparations,	4,672	11,518	+6,846	+146.53
Furniture,	6,674	8,190	+1,516	+22.72
Leather,	6,620	9,228	+2,608	+39.40
Machines and machinery,	9,561	14,644	+5,083	+53.16
Metals and metallic goods,	17,563	24,233	+6,670	+37.98
Paper and paper goods,	6,493	8,620	+2,127	+32.76
Printing, publishing, and bookbinding,	5,456	9,950	+4,494	+82.37
Print works, dye works, and bleacheries,	3,199	8,601	+5,402	+168.87
Rubber and elastic goods,	1,054	6,469	+5,415	+513.76
Woollen goods,	19,036	18,970	-66	-0.35
Worsted goods,	1,499	7,963	+6,464	+431.22
Other industries,	89,214	79,754	-9,460	-10.60
ALL INDUSTRIES,	297,042	379,328	+82,286	+27.70

The fourth comparison table shows total wages paid, or yearly earnings, in the Census years 1875 and 1885 for the 15 principal industries, and the increase in 1885, with percentages. As in the other tables, the remaining 68 industries are included in the line "Other Industries."

Total Wages Paid.

INDUSTRIES.	TOTAL YEARLY EARNINGS		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875*	1885		
Boots and shoes,	\$17,580,410	\$26,916,608	+\$9,336,198	+53.11
Building,	9,221,946	12,726,457	+3,504,511	+38.00
Clothing,	4,873,453	6,101,683	+1,228,230	+25.20
Cotton goods,	16,711,862	16,915,633	+203,771	+1.22
Food preparations,	2,525,914	4,806,499	+2,280,585	+90.29
Furniture,	3,173,796	3,624,028	+450,232	+14.19
Leather,	3,383,054	4,313,674	+930,620	+27.51
Machines and machinery,	6,419,271	7,249,855	+830,584	+12.94
Metals and metallic goods,	10,705,780	11,303,973	+598,193	+5.59

* Currency reduced to gold values.

Total Wages Paid — Concluded.

INDUSTRIES.	TOTAL YEARLY EARNINGS		Increase(+), or Decrease (-), in 1885	Percent- ages
	1875*	1885		
Paper and paper goods,	\$2,477,461	\$3,266,023	+\$788,562	+31.83
Printing, publishing, and bookbinding, .	2,687,218	4,627,116	+1,939,898	+72.19
Print works, dye works, and bleacheries,	194,084	2,873,711	+2,679,627	+1,380.65
Rubber and elastic goods,	406,554	2,285,165	+1,878,611	+462.08
Woollen goods,	5,542,015	5,688,981	+146,966	+2.65
Worsted goods,	491,293	2,439,498	+1,948,205	+396.55
Other industries,	26,741,231	32,276,412	+5,535,181	+20.70
ALL INDUSTRIES,	\$113,135,342	\$147,415,316	+\$34,279,974	+30.30

* Currency reduced to gold values.

Motive Power.

The full capacity of all the engines, wheels, etc., in use in the State in 1885 was 451,224 $\frac{3}{4}$ horse power. The horse power actually used was 365,517, or 81.01 per cent of the full capacity. In round numbers, two-thirds of the motive power of the State is supplied by steam and one-third by water.

In the table we bring into comparison, for the Census years 1875 and 1885, the full capacity and horse power actually used.

CLASSIFICATION OF MOTIVE POWER.	1875		1885	
	Full Capacity	Actually Used	Full Capacity	Actually Used
THE STATE.	*208,186	219,889	451,224 $\frac{3}{4}$	365,517
Steam,	208,186	109,307	301,318 $\frac{1}{2}$	238,672 $\frac{3}{4}$
Water,	-	110,582	149,906 $\frac{1}{4}$	126,339 $\frac{3}{4}$
Electric,	-	-	-	58
Caloric,	-	-	-	151 $\frac{1}{2}$
Gas,	-	-	-	192 $\frac{1}{2}$
Oil,	-	-	-	34
Windmills,	-	-	-	68 $\frac{1}{2}$

* Steam only.

In 1875 the full capacity of the water wheels was not stated and comparison is only possible as regards steam power.

The next table shows the gain in motive power in 1885 as compared with 1875.

CLASSIFICATION OF MOTIVE POWER.	HORSE POWER ACTUALLY USED		Excess in 1885	Percentages
	1875	1885		
THE STATE.	219,889	365,517	145,628	66.23
Steam,	109,307	238,672 $\frac{3}{4}$	129,365 $\frac{3}{4}$	118.35
Water,	110,582	126,339 $\frac{3}{4}$	15,757 $\frac{3}{4}$	14.25
Other power,	-	504 $\frac{1}{2}$	504 $\frac{1}{2}$	-

Machinery.

The following table supplies a comparison, as regards 1875 and 1885, for certain special kinds of machinery used in the manufacture of cotton, woollen, and worsted goods, and in paper making. The gain in 1885 is shown and also the percentages of gain.

CLASSIFICATION OF MACHINERY.	1875	1885	Gain (+), or Loss (-), in 1885	Percentages
COTTON.				
Spindles,	3,859,237	5,338,090	+1,478,853	+38.32
Power looms,	80,964	121,783	+40,819	+50.42
WOOLLEN.				
Sets of machinery,	1,383	1,780	+397	+28.71
Power looms,	8,412	11,287	+2,875	+34.18
WORSTED.				
Sets of machinery,	191	242	+51	+26.70
Power looms,	5,114	6,576	+1,462	+28.59
PAPER.				
Engines,	575	985	+410	+71.30
Machines,	125	214	+89	+71.20

The industrial facts to be gathered from this table are of particular value. We see that there has been a gain of 1,478,853, or 38.32 per cent, in cotton spindles, and 40,819, or 50.42 per cent, in power looms; in sets of machinery for woollen manufacture there has been a gain of 28.71 per cent, and in power looms 34.18 per cent; in sets of machinery used for worsted manufacture there has been a gain of 26.70 per cent, and in power looms 28.59 per cent; in paper engines there has been a gain of 71.30 per cent, and in paper machines 71.20 per cent.

Value of Goods Made and Work Done.

We present three comparative tables in relation to the value of goods made and work done.

INCREASE AND DECREASE. FOR THE STATE AND COUNTIES.

THE STATE, AND COUNTIES.	TOTAL VALUE OF GOODS MADE AND WORK DONE		Increase in 1885	Decrease in 1885
	1875*	1885		
THE STATE.	\$528,868,634	\$674,634,269	\$145,794,358	\$28,723
Barnstable,	1,367,688	2,513,206	1,145,518	-
Berkshire,	18,763,596	21,105,616	2,342,020	-
Bristol,	45,624,187	52,670,730	7,046,543	-
Dukes,	92,469	149,071	56,602	-
Essex,	83,466,736	119,168,189	35,701,453	-
Franklin,	4,733,815	6,418,958	1,685,143	-
Hampden,	31,867,884	42,609,234	10,741,350	-
Hampshire,	9,640,674	12,138,065	2,497,391	-
Middlesex,	92,040,402	128,599,892	36,559,490	-
Nantucket,	155,342	126,619	-	28,723
Norfolk,	24,022,360	28,824,100	4,801,740	-
Plymouth,	18,384,049	27,819,116	9,435,067	-
Suffolk,	125,723,086	149,281,727	23,558,641	-
Worcester,	72,986,346	83,209,746	10,223,400	-

* Currency reduced to gold values.

THE STATE, AND COUNTIES.	Towns in State and Counties	Number of Towns showing In- crease †	Number of Towns showing De- crease ‡	Percentages of Increase	Percentages of Decrease
THE STATE.*	348	204	144	27.57	18.49
Barnstable,	15	13	2	83.76	-
Berkshire,	32	16	16	12.48	-
Bristol,	19	13	6	15.44	-
Dukes,	6	2	4	61.21	-
Essex,	35	29	6	42.77	-
Franklin,	26	14	12	35.60	-
Hampden,	22	9	13	33.71	-
Hampshire,	23	13	10	25.90	-
Middlesex,	54	35	19	39.72	-
Nantucket,	1	-	1	-	18.49
Norfolk,	26	16	10	19.99	-
Plymouth,	27	15	12	51.32	-
Suffolk,	4	4	-	18.74	-
Worcester,	58	25	33	14.01	-

* The actual net increase in 1885 over 1875, gold values, is \$145,765,635. The actual net percentage of increase is 27.56 in ten years, or an average of 2.756 per cent increase annually.

† Including 22 cities.

‡ Including one city.

§ Including two towns having "no manufactures."

We find from the first table on page 399 that 13 counties show an increase in the value of goods made; one county, Nantucket, shows a decrease. The results are more plainly shown in the second table on the same page.

Below we give the third and final comparative table, as regards goods made, for the Census years 1875 and 1885; it covers the 15 principal industries, the remaining 68 being included in the line "Other Industries."

INDUSTRIES.	VALUE OF GOODS MADE AND WORK DONE		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875*	1885		
Boots and shoes,	\$79,799,814	\$114,729,533	+\$34,929,719	+43.77
Building,	7,728,992	39,801,245	+32,072,253	+414.93
Clothing,	26,197,288	32,659,837	+6,462,549	+24.67
Cotton goods,	69,584,601	61,425,097	-8,159,504	-11.73
Food preparations,	39,851,771	80,488,329	+40,636,558	+101.97
Furniture,	7,520,431	12,716,908	+5,196,477	+69.10
Leather,	21,143,549	28,008,851	+6,865,302	+32.47
Machines and machinery,	14,642,170	20,365,970	+5,723,800	+39.09
Metals and metallic goods,	33,825,780	41,332,005	+7,506,225	+22.19
Paper and paper goods,	13,930,892	21,223,626	+7,292,734	+52.35
Printing, publishing, and bookbinding,	10,822,030	16,552,475	+5,730,445	+52.95
Print works, dye works, and bleacheries,	3,222,919	15,880,843	+12,657,924	+392.75
Rubber and elastic goods,	3,021,246	12,638,741	+9,617,495	+318.33
Woollen goods,	35,327,123	31,748,278	-3,578,845	-10.13
Worsted goods,	2,670,723	11,198,148	+8,527,425	+319.29
Other industries,	159,579,305	133,864,383	-25,714,922	-16.11
ALL INDUSTRIES,	\$528,868,634	\$674,634,269	+\$145,765,635	+27.56

* Currency reduced to gold values.

We append a summary of general results.

1. *The incomplete enumeration in some years, and the variations in classification hereinbefore explained, render it impossible to make general comparisons, for all industries, between the various Census years considered.*

2. *In 1885, the private firms represented 95.95 per cent of the whole number of establishments engaged in manufacturing and mechanical industries in the State, 39.84 per cent of the whole number of partners and stockholders, 39.94 per cent of the total amount of capital invested, 63.52 per cent of the total value of stock used, 64.79 per cent of the total value of goods made and work done, 61.35 per cent of the whole number of*

persons employed during the Census year, and 63.31 per cent of the total wages paid during the same period. The percentages for corporations exceed those for private firms in but two particulars; in the number of stockholders as compared with the number of partners, and in the amount of capital invested.

If 1885 is compared with 1875, on the basis of **gold values**, we secure the following results :

3. *As regards the amount of capital invested, an increase in 1885 of \$248,198,200, or 98.34 per cent, which great expansion is partly due to more complete enumeration and to the including, for the first time, of credit capital or borrowed money.*

4. *As regards the value of stock used, an increase in 1885 of \$126,397,123, or 47.99 per cent.*

5. *As regards total wages paid during the year, an increase in 1885 of \$34,279,974, or 30.30 per cent.*

6. *As regards the value of goods made and work done, an increase in 1885 of \$145,765,635, or 27.56 per cent.*

Several comparisons, not on the basis of values, conclude this presentation.

7. *As regards the number of persons employed during the year, an increase in 1885 of 82,286, or 27.70 per cent.*

8. *As regards motive power, a gain in 1885 of 145,628 horse power, or 66.23 per cent.*

9. *As regards cotton machinery, an increase in 1885 of 1,478,853 spindles, or 38.32 per cent, and 40,819 power looms, or 50.42 per cent.*

PART V.

CLASSIFIED WEEKLY WAGES.

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Two methods of presenting statistics of wages may be employed. The first consists in the use of averages; the second involves the classification of rates, and the presentation of the actual number of employes to whom each rate, as classified, is paid. The last method accurately reflects the wage standard prevailing in the industry or establishment under consideration, while the first, although generally used, does not always do this.

Notwithstanding that it repeats what we have elsewhere several times remarked, we again point out that no single average can accurately denote the conditions as to wages in any industry. Everywhere in economic discussion average wages are referred to, and the so-called average rate of wages quoted, as though the truth could always be indicated in some such concrete form. There is no such thing as an average rate of wages, in any general sense. In fact the present subdivisions of employment are so minute, the classes of operatives employed in the same industry so different with respect to skill, and the numbers of males and females, children, young persons and adults, employed in the several establishments vary so widely that any single average must be based upon a wide range of dissimilar units. Furthermore, an average is usually obtained by dividing the sum of such units by a divisor necessarily variable. For instance, in obtaining an average wage in any establishment or in any industry, the number representing the sum of wages paid in each case is divided by the number representing either the average or the total of per-

sons employed. The divisor varies in each establishment and in each industry as to the factors that compose it, and being variable produces averages which are misleading.

Averages certainly have their place in statistical presentations, and are entirely legitimate when the elements upon which they are based are alike. It would be possible, for example, to secure an average wage for weavers, lasters, or any other special branch that would be fairly representative, inasmuch as it would be based upon units of the same kind in each case. In this restricted sense the expression "average rate of wages" may be permitted. Averages based upon dissimilar units, secured at a certain time and place, may be legitimately compared with averages dissimilar to each other, but identical with those from which the first average was derived, secured at a subsequent time, or at a different place, and the difference in conditions observed in such comparisons may be accepted as accurately determined.

Any reliance upon averages otherwise obtained without, at the same time, a careful consideration of the range of units upon which each average is based inevitably leads to false conclusions.

In the Twenty-first Annual Report we shall present actual wage averages obtained, not by dividing the total sum paid by the number representing the employes who received it, but based upon the actual rates paid a specified number of employes engaged in the same class of employment. The present Part deals with classified wages paid in the establishments in the different industries, arranged in classes according to the different rates, and not according to the particular kind or subdivision of employment. This classification, applied as it is to a large number of employes, will afford an opportunity for comparisons with similar returns in the future, for the purpose of showing whether wages are tending upward or downward in each industry as a whole, without resorting to the use of averages.

The material for the tables which follow is derived from the recent Decennial Census, but the statistical presentation differs essentially from that employed in the Census, and percentages now accompany the numerical data. The tables are thus rendered available for comparisons and for analytical treatment

which, owing to lack of space, was necessarily omitted in the Census volume. In this form the data are also made accessible to many who do not care for the matter with which they were combined in the Census. No material change has taken place in wages since these statistics were collected and they may be accepted as representing present conditions. They cover the classified weekly wages paid to 248,200 employes, 65.43 per cent, or nearly two-thirds, of the total number of employes in the establishments engaged in manufacturing and mechanical industries.

In addition to the regular wages paid, in a comparatively few instances rent and board were given free. The following statement, by industries, covers all such cases reported: Brick, Tiles, and Sewer Pipe, board free for 470 males; Cotton Goods, rent free for one male; Food Preparations, board free for 38 males and 7 females; Metals and Metallic Goods, board free for two males; and in Tobacco, Snuff, and Cigars, board free for one male.

The percentage of employes in each industry, for whom wages are reported, of the total number of persons employed, as returned in the Census, may be noted in the following table:

*Number of Persons for whom Classified Weekly Wages were Reported;
with Percentages.*

INDUSTRIES.	Whole Number of Persons Employed June 30, 1885	Number of Persons for whom Classified Weekly Wages were Reported	Percentages
Agricultural implements,	821	627	76.37
Arms and ammunition,	1,634	1,412	83.85
Artificial teeth and dental work,	60	39	65.00
Artisans' tools,	1,724	1,076	62.41
Awnings, tents, and decorations,	88	29	32.95
Boots and shoes,	64,858	39,113	60.31
Boxes (paper and wooden),	3,364	2,064	61.36
Brick, tiles, and sewer pipe,	2,741	1,893	69.24
Brooms, brushes, and mops,	897	219	24.41
Building,	27,873	18,949	67.98
Burial cases, caskets, coffins, etc.,	352	232	80.11
Buttons and dress trimmings,	1,033	122	11.75
Carpetings,	4,171	1,703	40.83
Carriages and wagons,	4,806	3,711	77.22
Cement, kaolin, lime, and plaster,	173	87	50.29
Charcoal and kindlers,	9	5	55.56

*Number of Persons for whom Classified Weekly Wages were Reported ;
with Percentages — Continued.*

INDUSTRIES.	Whole Number of Persons Employed June 30, 1885	Number of Persons for whom Classified Weekly Wages were Reported	Percentages
Chemical preparations (compounded),	284	153	53.87
Clocks and watches,	3,128	1,751	55.98
Clothing,	18,325	9,523	51.97
Concrete walks, paving, etc.,	220	179	81.36
Cooking, lighting, and heating apparatus,	2,123	1,561	73.53
Cordage and twine,	2,573	1,763	68.52
Corks, bungs, and taps,	79	55	69.62
Cotton goods,	60,132	48,178	80.12
Cotton, woollen, and other textiles,	2,410	2,451	101.70
Crayons, pencils, crucibles, etc.,	94	22	23.40
Drugs and medicines,	770	483	62.73
Dyestuffs,	184	113	61.41
Earthen, plaster, and stone ware,	377	334	88.59
Electrical apparatus and appliances,	716	533	74.44
Electroplating,	139	126	90.65
Emery and sand paper and cloth, etc,	206	148	71.84
Fancy articles,	110	40	36.36
Fertilizers,	482	134	27.80
Fine arts and taxidermy,	18	12	66.67
Fireworks and matches,	102	63	61.76
Flax, hemp, and jute goods,	982	826	84.11
Food preparations,	11,518	6,949	60.33
Furniture,	8,190	3,910	47.74
Gas and residual products,	1,221	989	81.00
Glass,	982	596	60.69
Glue, isinglass, and starch,	543	479	88.21
Hair work (animal and human),	208	128	61.54
Hose: rubber, linen, etc.,	110	63	57.27
Hosiery and knit goods,	3,663	2,790	76.17
Ink, mucilage, and paste,	62	29	46.77
Ivory, bone, shell, and horn goods, etc.,	887	754	85.01
Jewelry burnishing and lapidary work,	16	2	12.50
Leather,	9,228	7,026	76.14
Linen,	926	606	65.44
Liquors and beverages (not spirituous),	307	184	59.93
Liquors: malt, distilled, and fermented,	1,526	816	53.47
Lumber,	1,892	992	52.43
Machines and machinery,	14,644	10,138	69.23
Metals and metallic goods,	24,233	13,618	56.20
Mixed textiles,	675	450	66.67
Models and patterns,	167	128	76.65
Musical instruments and materials,	6,368	1,354	40.20
Oils and illuminating fluids,	441	386	87.53
Paints, colors, and crude chemicals,	186	193	103.76
Paper and paper goods,	8,620	6,477	75.14
Perfumes, toilet articles, etc.,	47	37	78.72
Photographs and photographic materials,	573	301	52.53

*Number of Persons for whom Classified Weekly Wages were Reported;
with Percentages — Concluded.*

INDUSTRIES.	Whole Number of Persons Employed June 30, 1885	Number of Persons for whom Classified Weekly Wages were Reported	Percentages
Polishes and dressing,	287	114	39.72
Printing, publishing, and bookbinding,	9,950	6,080	61.11
Print works, dye works, and bleacheries,	8,601	4,736	55.06
Railroad construction,	1,786	1,150	64.39
Rubber and elastic goods,	6,469	2,966	45.85
Salt,	17	8	47.06
Scientific instruments and appliances,	775	501	64.65
Shipbuilding,	1,534	805	52.48
Silk and silk goods,	2,126	1,392	65.48
Sporting and athletic goods,	530	173	32.64
Stone,	6,111	4,743	77.61
Straw and palm leaf goods,	4,647	1,458	31.38
Tallow, candles, soap, and grease,	734	635	86.51
Tobacco, snuff, and cigars,	2,053	1,340	65.27
Toys and games (children's),	325	275	84.62
Trunks and valises,	198	74	37.37
Whips, lashes, and stocks,	562	294	52.31
Wooden goods,	3,344	2,054	61.42
Woollen goods,	18,970	14,106	74.36
Worsted goods,	7,963	6,117	76.82
ALL INDUSTRIES,	379,328	248,200	65.43

This table requires no analysis. It clearly shows the representative character of the special industry presentations which follow. At the close of the tables, which give classified weekly wages by industries, will be found an analysis of results.

CLASSIFIED WEEKLY WAGES: BY INDUSTRIES.

AGRICULTURAL IMPLEMENTS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	36	-	5.74	-	36	5.74
\$5 but under \$6,	14	-	2.23	-	14	2.23
\$6 but under \$7,	47	-	7.50	-	47	7.50
\$7 but under \$8,	89	-	14.19	-	89	14.19
\$8 but under \$9,	68	-	10.85	-	68	10.85
\$9 but under \$10,	82	-	13.08	-	82	13.08
\$10 but under \$12,	142	-	22.65	-	142	22.65
\$12 but under \$15,	84	-	13.40	-	84	13.40
\$15 but under \$20,	54	-	8.61	-	54	8.61
\$20 and over,	11	-	1.75	-	11	1.75
TOTALS,	627	-	100.00	-	627	100.00

ARMS AND AMMUNITION.

Under \$5,	70	105	5.43	85.37	175	12.39
\$5 but under \$6,	35	17	2.71	13.82	52	3.68
\$6 but under \$7,	62	-	4.81	-	62	4.39
\$7 but under \$8,	59	-	4.58	-	59	4.18
\$8 but under \$9,	26	-	2.02	-	26	1.84
\$9 but under \$10,	68	1	5.27	0.81	69	4.89
\$10 but under \$12,	186	-	14.43	-	186	13.17
\$12 but under \$15,	178	-	13.81	-	178	12.61
\$15 but under \$20,	525	-	40.73	-	525	37.18
\$20 and over,	80	-	6.21	-	80	5.67
TOTALS,	1,289	123	100.00	100.00	1,412	100.00

ARTIFICIAL TEETH AND DENTAL WORK.

Under \$5,	6	2	26.09	12.50	8	20.52
\$5 but under \$6,	1	1	4.35	6.25	2	5.13
\$6 but under \$7,	-	-	-	-	-	-
\$7 but under \$8,	1	-	4.35	-	1	2.56
\$8 but under \$9,	1	-	4.35	-	1	2.56
\$9 but under \$10,	1	-	4.35	-	1	2.56
\$10 but under \$12,	3	13	13.04	81.25	16	41.03
\$12 but under \$15,	-	-	-	-	-	-
\$15 but under \$20,	7	-	30.43	-	7	17.95
\$20 and over,	3	-	13.04	-	3	7.69
TOTALS,	23	16	100.00	100.00	39	100.00

ARTISANS' TOOLS.

Under \$5,	52	3	5.11	5.17	55	5.11
\$5 but under \$6,	50	14	4.91	24.14	64	5.95
\$6 but under \$7,	56	20	5.50	34.48	76	7.06
\$7 but under \$8,	75	5	7.37	8.62	80	7.43
\$8 but under \$9,	46	9	4.52	15.52	55	5.11
\$9 but under \$10,	138	-	13.56	-	138	12.83
\$10 but under \$12,	169	1	16.60	1.72	170	15.80
\$12 but under \$15,	218	-	21.41	-	218	20.26
\$15 but under \$20,	151	6	14.83	10.55	157	14.59
\$20 and over,	63	-	6.19	-	63	5.86
TOTALS,	1,018	58	100.00	100.00	1,076	100.00

Classified Weekly Wages: By Industries — Continued.

AWNINGS, TENTS, AND DECORATIONS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	2	1	10.00	11.11	3	10.35
\$5 but under \$6,	-	3	-	33.34	3	10.34
\$6 but under \$7,	-	-	-	-	-	-
\$7 but under \$8,	-	1	-	11.11	1	3.45
\$8 but under \$9,	-	1	-	11.11	1	3.45
\$9 but under \$10,	2	1	10.00	11.11	3	10.34
\$10 but under \$12,	-	-	-	-	-	-
\$12 but under \$15,	2	-	10.00	-	2	6.90
\$15 but under \$20,	3	-	15.00	-	3	10.34
\$20 and over,	11	2	55.00	22.22	13	44.83
TOTALS,	20	9	100.00	100.00	29	100.00

BOOTS AND SHOES.

Under \$5,	1,063	1,493	3.87	12.85	2,556	6.53
\$5 but under \$6,	652	1,170	2.37	10.07	1,822	4.66
\$6 but under \$7,	1,083	1,647	3.87	14.13	2,730	6.93
\$7 but under \$8,	1,434	1,580	5.21	13.60	3,014	7.70
\$8 but under \$9,	1,503	1,818	5.47	15.65	3,321	8.49
\$9 but under \$10,	2,543	1,447	9.25	12.45	3,990	10.20
\$10 but under \$12,	4,017	1,387	14.61	11.94	5,404	13.82
\$12 but under \$15,	7,643	777	27.80	6.69	8,420	21.53
\$15 but under \$20,	6,272	248	22.81	2.13	6,520	16.67
\$20 and over,	1,305	51	4.74	0.44	1,356	3.47
TOTALS,	27,495	11,618	100.00	100.00	39,113	100.00

BOXES (PAPER AND WOODEN).

Under \$5,	86	229	6.51	30.82	315	15.26
\$5 but under \$6,	46	162	3.48	21.80	208	10.08
\$6 but under \$7,	86	130	6.51	17.50	216	10.47
\$7 but under \$8,	150	122	11.36	16.42	272	13.18
\$8 but under \$9,	126	61	9.54	8.21	187	9.06
\$9 but under \$10,	226	25	17.11	3.37	251	12.16
\$10 but under \$12,	298	7	22.56	0.94	305	14.78
\$12 but under \$15,	227	3	17.18	0.40	230	11.14
\$15 but under \$20,	65	3	4.92	0.40	68	3.29
\$20 and over,	11	1	0.83	0.14	12	0.58
TOTALS,	1,321	743	100.00	100.00	2,064	100.00

BRICK, TILES, AND SEWER PIPE.

Under \$5,	481	2	25.49	18.18	483	25.45
\$5 but under \$6,	59	2	3.13	18.18	61	3.21
\$6 but under \$7,	34	3	1.80	27.27	37	1.95
\$7 but under \$8,	120	-	6.36	-	120	6.32
\$8 but under \$9,	235	-	12.45	-	235	12.38
\$9 but under \$10,	378	1	20.03	9.10	379	19.97
\$10 but under \$12,	263	3	13.94	27.27	266	14.01
\$12 but under \$15,	140	-	7.42	-	140	7.38
\$15 but under \$20,	54	-	2.86	-	54	2.85
\$20 and over,	123	-	6.52	-	123	6.48
TOTALS,	1,887	11	100.00	100.00	1,898	100.00

Classified Weekly Wages: By Industries—Continued.

BROOMS, BRUSHES, AND MOPS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	15	32	9.49	52.46	47	21.46
\$5 but under \$6,	11	10	6.96	16.39	21	9.59
\$6 but under \$7,	17	14	10.76	22.95	31	14.16
\$7 but under \$8,	21	2	13.29	3.28	23	10.50
\$8 but under \$9,	29	—	18.35	—	29	13.24
\$9 but under \$10,	19	2	12.03	3.28	21	9.59
\$10 but under \$12,	22	1	13.92	1.64	23	10.50
\$12 but under \$15,	16	—	10.13	—	16	7.31
\$15 but under \$20,	6	—	3.80	—	6	2.74
\$20 and over,	2	—	1.27	—	2	0.91
TOTALS,	158	61	100.00	100.00	219	100.00

BUILDING.

Under \$5,	241	3	1.27	10.00	244	1.29
\$5 but under \$6,	186	8	0.98	26.67	194	1.02
\$6 but under \$7,	387	8	2.05	26.67	395	2.09
\$7 but under \$8,	436	1	2.30	3.33	437	2.31
\$8 but under \$9,	246	1	1.30	3.33	247	1.30
\$9 but under \$10,	1,435	—	7.58	—	1,435	7.57
\$10 but under \$12,	2,334	5	12.34	16.67	2,339	12.34
\$12 but under \$15,	6,797	4	35.93	13.33	6,801	35.89
\$15 but under \$20,	5,906	—	31.22	—	5,906	31.17
\$20 and over,	951	—	5.03	—	951	5.02
TOTALS,	18,919	30	100.00	100.00	18,949	100.00

BURIAL CASES, CASKETS, COFFINS, ETC.

Under \$5,	15	—	6.00	—	15	5.32
\$5 but under \$6,	7	5	2.80	15.62	12	4.25
\$6 but under \$7,	9	2	3.60	6.25	11	3.90
\$7 but under \$8,	10	2	4.00	6.25	12	4.25
\$8 but under \$9,	12	1	4.80	3.13	13	4.61
\$9 but under \$10,	18	11	7.20	34.37	29	10.29
\$10 but under \$12,	39	8	15.60	25.00	47	16.67
\$12 but under \$15,	82	2	32.80	6.25	84	29.79
\$15 but under \$20,	43	1	17.20	3.13	44	15.60
\$20 and over,	15	—	6.00	—	15	5.32
TOTALS,	250	32	100.00	100.00	282	100.00

BUTTONS AND DRESS TRIMMINGS.

Under \$5,	15	18	22.73	32.14	33	27.05
\$5 but under \$6,	8	18	12.12	32.14	26	21.31
\$6 but under \$7,	8	9	12.12	16.07	17	13.93
\$7 but under \$8,	1	10	1.51	17.86	11	9.02
\$8 but under \$9,	3	1	4.55	1.79	4	3.28
\$9 but under \$10,	4	—	6.06	—	4	3.28
\$10 but under \$12,	2	—	3.03	—	2	1.64
\$12 but under \$15,	10	—	15.15	—	10	8.19
\$15 but under \$20,	11	—	16.67	—	11	9.02
\$20 and over,	4	—	6.06	—	4	3.28
TOTALS,	66	56	100.00	100.00	122	100.00

Classified Weekly Wages: By Industries — Continued.

CARPETINGS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	130	370	15.91	41.76	500	29.36
\$5 but under \$6,	70	327	8.57	36.91	397	23.31
\$6 but under \$7,	49	91	6.00	10.27	140	8.22
\$7 but under \$8,	154	45	18.85	5.08	199	11.69
\$8 but under \$9,	39	21	4.77	2.37	60	3.52
\$9 but under \$10,	62	2	7.59	0.23	64	3.76
\$10 but under \$12,	129	28	15.79	3.16	157	9.22
\$12 but under \$15,	90	1	11.02	0.11	91	5.34
\$15 but under \$20,	63	—	7.71	—	63	3.70
\$20 and over,	31	1	3.79	0.11	32	1.88
TOTALS,	817	886	100.00	100.00	1,703	100.00

CARRIAGES AND WAGONS.

Under \$5,	85	—	2.31	—	85	2.29
\$5 but under \$6,	68	1	1.85	2.78	69	1.86
\$6 but under \$7,	132	9	3.59	25.00	141	3.80
\$7 but under \$8,	117	7	3.18	19.45	124	3.34
\$8 but under \$9,	133	8	3.62	22.22	141	3.80
\$9 but under \$10,	392	3	10.67	8.33	395	10.65
\$10 but under \$12,	536	—	14.58	—	536	14.44
\$12 but under \$15,	1,159	—	31.54	—	1,159	31.23
\$15 but under \$20,	944	8	25.69	22.22	952	25.65
\$20 and over,	109	—	2.97	—	109	2.94
TOTALS,	3,675	36	100.00	100.00	3,711	100.00

CEMENT, KAOLIN, LIME, AND PLASTER.

Under \$5,	—	—	—	—	—	—
\$5 but under \$6,	—	—	—	—	—	—
\$6 but under \$7,	1	—	1.15	—	1	1.15
\$7 but under \$8,	19	—	21.84	—	19	21.84
\$8 but under \$9,	27	—	31.04	—	27	31.04
\$9 but under \$10,	11	—	12.64	—	11	12.64
\$10 but under \$12,	11	—	12.64	—	11	12.64
\$12 but under \$15,	7	—	8.05	—	7	8.05
\$15 but under \$20,	1	—	1.15	—	1	1.15
\$20 and over,	10	—	11.49	—	10	11.49
TOTALS,	87	—	100.00	—	87	100.00

CHARCOAL AND KINDLERS.

Under \$5,	3	—	60.00	—	3	60.00
\$5 but under \$6,	—	—	—	—	—	—
\$6 but under \$7,	—	—	—	—	—	—
\$7 but under \$8,	—	—	—	—	—	—
\$8 but under \$9,	—	—	—	—	—	—
\$9 but under \$10,	2	—	40.00	—	2	40.00
\$10 but under \$12,	—	—	—	—	—	—
\$12 but under \$15,	—	—	—	—	—	—
\$15 but under \$20,	—	—	—	—	—	—
\$20 and over,	—	—	—	—	—	—
TOTALS,	5	—	100.00	—	5	100.00

Classified Weekly Wages: By Industries — Continued.

CHEMICAL PREPARATIONS (COMPOUNDED).

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	1	2	0.66	100.00	3	1.96
\$5 but under \$6,	2	-	1.32	-	2	1.31
\$6 but under \$7,	1	-	0.66	-	1	0.65
\$7 but under \$8,	2	-	1.32	-	2	1.31
\$8 but under \$9,	-	-	-	-	-	-
\$9 but under \$10,	16	-	10.60	-	16	10.46
\$10 but under \$12,	84	-	55.63	-	84	54.90
\$12 but under \$15,	38	-	25.17	-	38	24.84
\$15 but under \$20,	7	-	4.64	-	7	4.57
\$20 and over,	-	-	-	-	-	-
TOTALS,	151	2	100.00	100.00	153	100.00

CLOCKS AND WATCHES.

Under \$5,	63	14	7.77	1.49	77	4.40
\$5 but under \$6,	3	3	0.37	0.32	6	0.34
\$6 but under \$7,	3	452	0.37	48.08	455	25.99
\$7 but under \$8,	1	467	0.12	49.68	468	26.73
\$8 but under \$9,	11	-	1.36	-	11	0.63
\$9 but under \$10,	1	1	0.12	0.11	2	0.11
\$10 but under \$12,	169	-	20.84	-	169	9.65
\$12 but under \$15,	56	3	6.90	0.32	59	3.37
\$15 but under \$20,	481	-	59.31	-	481	27.47
\$20 and over,	23	-	2.84	-	23	1.31
TOTALS,	811	940	100.00	100.00	1,751	100.00

CLOTHING.

Under \$5,	332	1,571	12.12	23.16	1,903	19.98
\$5 but under \$6,	189	1,132	6.90	16.69	1,321	13.87
\$6 but under \$7,	184	1,473	6.71	21.72	1,657	17.40
\$7 but under \$8,	190	808	6.93	11.91	998	10.48
\$8 but under \$9,	157	584	5.73	8.61	741	7.78
\$9 but under \$10,	231	420	8.43	6.19	651	6.84
\$10 but under \$12,	315	376	11.50	5.54	691	7.26
\$12 but under \$15,	446	189	16.28	2.79	635	6.67
\$15 but under \$20,	418	95	15.25	1.40	513	5.39
\$20 and over,	278	135	10.15	1.99	413	4.33
TOTALS,	2,740	6,783	100.00	100.00	9,523	100.00

CONCRETE WALKS, PAVING, ETC.

Under \$5,	8	-	4.47	-	8	4.47
\$5 but under \$6,	-	-	-	-	-	-
\$6 but under \$7,	-	-	-	-	-	-
\$7 but under \$8,	32	-	17.88	-	32	17.88
\$8 but under \$9,	15	-	8.38	-	15	8.38
\$9 but under \$10,	38	-	21.23	-	38	21.23
\$10 but under \$12,	53	-	29.61	-	53	29.61
\$12 but under \$15,	30	-	16.76	-	30	16.76
\$15 but under \$20,	3	-	1.67	-	3	1.67
\$20 and over,	-	-	-	-	-	-
TOTALS,	179	-	100.00	-	179	100.00

Classified Weekly Wages: By Industries—Continued.
 COOKING, LIGHTING, AND HEATING APPARATUS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	50	1	3.22	14.28	51	3.27
\$5 but under \$6,	22	—	1.42	—	22	1.41
\$6 but under \$7,	40	2	2.57	28.58	42	2.69
\$7 but under \$8,	45	1	2.90	14.28	46	2.95
\$8 but under \$9,	80	—	5.15	—	80	5.12
\$9 but under \$10,	188	1	12.10	14.28	189	12.11
\$10 but under \$12,	226	2	14.54	28.58	228	14.61
\$12 but under \$15,	348	—	22.39	—	348	22.29
\$15 but under \$20,	407	—	26.19	—	407	26.07
\$20 and over,	148	—	9.52	—	148	9.48
TOTALS,	1,554	7	100.00	100.00	1,561	100.00

CORDAGE AND TWINE.

Under \$5,	264	522	25.61	71.31	786	44.58
\$5 but under \$6,	45	163	4.37	22.27	208	11.80
\$6 but under \$7,	91	41	8.83	5.60	132	7.49
\$7 but under \$8,	55	3	5.33	0.41	58	3.29
\$8 but under \$9,	208	3	20.17	0.41	211	11.97
\$9 but under \$10,	148	—	14.36	—	148	8.40
\$10 but under \$12,	72	—	6.98	—	72	4.08
\$12 but under \$15,	66	—	6.40	—	66	3.74
\$15 but under \$20,	62	—	6.01	—	62	3.52
\$20 and over,	20	—	1.94	—	20	1.13
TOTALS,	1,031	732	100.00	100.00	1,763	100.00

CORKS, BUNGS, AND TAPS.

Under \$5,	9	18	28.12	78.26	27	49.09
\$5 but under \$6,	4	2	12.50	8.70	6	10.91
\$6 but under \$7,	5	3	15.63	13.04	8	14.54
\$7 but under \$8,	—	—	—	—	—	—
\$8 but under \$9,	2	—	6.25	—	2	3.64
\$9 but under \$10,	3	—	9.37	—	3	5.45
\$10 but under \$12,	2	—	6.25	—	2	3.64
\$12 but under \$15,	2	—	6.25	—	2	3.64
\$15 but under \$20,	5	—	15.63	—	5	9.09
\$20 and over,	—	—	—	—	—	—
TOTALS,	32	23	100.00	100.00	55	100.00

COTTON GOODS.

Under \$5,	6,298	13,004	28.61	49.70	19,302	40.06
\$5 but under \$6,	3,186	6,264	14.47	23.94	9,450	19.61
\$6 but under \$7,	2,956	4,177	13.43	15.97	7,133	14.81
\$7 but under \$8,	2,905	1,979	13.20	7.56	4,884	10.14
\$8 but under \$9,	1,945	488	8.83	1.86	2,433	5.05
\$9 but under \$10,	1,741	148	7.91	0.57	1,889	3.92
\$10 but under \$12,	1,363	52	6.19	0.20	1,415	2.94
\$12 but under \$15,	769	13	3.49	0.05	782	1.62
\$15 but under \$20,	577	23	2.62	0.09	600	1.25
\$20 and over,	275	15	1.25	0.06	290	0.60
TOTALS,	22,015	26,163	100.00	100.00	48,178	100.00

Classified Weekly Wages: By Industries—Continued.

COTTON, WOOLLEN, AND OTHER TEXTILES.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	269	715	22.18	57.75	984	40.15
\$5 but under \$6,	87	227	7.17	18.34	314	12.81
\$6 but under \$7,	246	241	20.28	19.47	487	19.87
\$7 but under \$8,	285	29	23.50	2.34	314	12.81
\$8 but under \$9,	73	2	6.02	0.16	75	3.06
\$9 but under \$10,	95	11	7.83	0.89	106	4.32
\$10 but under \$12,	58	13	4.78	1.05	71	2.90
\$12 but under \$15,	51	—	4.20	—	51	2.08
\$15 but under \$20,	34	—	2.80	—	34	1.39
\$20 and over,	15	—	1.24	—	15	0.61
TOTALS,	1,213	1,238	100.00	100.00	2,451	100.00

CRAYONS, PENCILS, CRUCIBLES, ETC.

Under \$5,	—	3	—	100.00	3	13.64
\$5 but under \$6,	—	—	—	—	—	—
\$6 but under \$7,	2	—	10.53	—	2	9.09
\$7 but under \$8,	13	—	68.42	—	13	59.09
\$8 but under \$9,	—	—	—	—	—	—
\$9 but under \$10,	4	—	21.05	—	4	18.18
\$10 but under \$12,	—	—	—	—	—	—
\$12 but under \$15,	—	—	—	—	—	—
\$15 but under \$20,	—	—	—	—	—	—
\$20 and over,	—	—	—	—	—	—
TOTALS,	19	3	100.00	100.00	22	100.00

DRUGS AND MEDICINES.

Under \$5,	31	19	9.01	13.67	50	10.35
\$5 but under \$6,	33	33	9.59	23.74	66	13.67
\$6 but under \$7,	17	72	4.94	51.80	89	18.43
\$7 but under \$8,	23	4	6.69	2.88	27	5.59
\$8 but under \$9,	26	—	7.56	—	26	5.38
\$9 but under \$10,	41	2	11.92	1.44	43	8.90
\$10 but under \$12,	57	7	16.57	5.03	64	13.25
\$12 but under \$15,	58	—	16.86	—	58	12.01
\$15 but under \$20,	48	2	13.95	1.44	50	10.35
\$20 and over,	10	—	2.91	—	10	2.07
TOTALS,	344	139	100.00	100.00	483	100.00

DYESTUFFS.

Under \$5,	2	—	1.89	—	2	1.77
\$5 but under \$6,	3	1	2.83	14.29	4	3.54
\$6 but under \$7,	1	4	0.94	57.14	5	4.42
\$7 but under \$8,	8	2	7.55	28.57	10	8.85
\$8 but under \$9,	25	—	23.59	—	25	22.12
\$9 but under \$10,	22	—	20.75	—	22	19.47
\$10 but under \$12,	32	—	30.19	—	32	28.32
\$12 but under \$15,	10	—	9.43	—	10	8.85
\$15 but under \$20,	1	—	0.94	—	1	0.89
\$20 and over,	2	—	1.89	—	2	1.77
TOTALS,	106	7	100.00	100.00	113	100.00

Classified Weekly Wages: By Industries — Continued.

EARTHEN, PLASTER, AND STONE WARE.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	25	14	8.25	45.17	39	11.68
\$5 but under \$6,	5	—	1.65	—	5	1.50
\$6 but under \$7,	7	10	2.31	32.26	17	5.09
\$7 but under \$8,	18	5	5.94	16.13	23	6.88
\$8 but under \$9,	12	—	3.96	—	12	3.59
\$9 but under \$10,	85	1	28.06	3.22	86	25.75
\$10 but under \$12,	50	1	16.50	3.22	51	15.27
\$12 but under \$15,	54	—	17.82	—	54	16.17
\$15 but under \$20,	33	—	10.89	—	33	9.88
\$20 and over,	14	—	4.62	—	14	4.19
TOTALS,	303	31	100.00	100.00	334	100.00

ELECTRICAL APPARATUS AND APPLIANCES.

Under \$5,	29	—	5.48	—	29	5.44
\$5 but under \$6,	22	—	4.16	—	22	4.13
\$6 but under \$7,	23	2	4.35	50.00	25	4.69
\$7 but under \$8,	31	—	5.86	—	31	5.82
\$8 but under \$9,	33	1	6.24	25.00	34	6.38
\$9 but under \$10,	49	—	9.26	—	49	9.19
\$10 but under \$12,	84	—	15.88	—	84	15.76
\$12 but under \$15,	124	1	23.44	25.00	125	23.45
\$15 but under \$20,	110	—	20.79	—	110	20.64
\$20 and over,	24	—	4.54	—	24	4.50
TOTALS,	529	4	100.00	100.00	533	100.00

ELECTROPLATING.

Under \$5,	14	1	11.57	20.00	15	11.91
\$5 but under \$6,	2	—	1.65	—	2	1.59
\$6 but under \$7,	13	2	10.74	40.00	15	11.90
\$7 but under \$8,	10	1	8.27	20.00	11	8.73
\$8 but under \$9,	2	1	1.65	20.00	3	2.38
\$9 but under \$10,	25	—	20.66	—	25	19.84
\$10 but under \$12,	14	—	11.57	—	14	11.11
\$12 but under \$15,	18	—	14.88	—	18	14.29
\$15 but under \$20,	20	—	16.53	—	20	15.87
\$20 and over,	3	—	2.48	—	3	2.38
TOTALS,	121	5	100.00	100.00	126	100.00

EMERY AND SAND PAPER AND CLOTH, ETC.

Under \$5,	4	1	2.94	8.34	5	3.38
\$5 but under \$6,	2	—	1.47	—	2	1.35
\$6 but under \$7,	3	9	2.20	75.00	12	8.11
\$7 but under \$8,	8	1	5.89	8.33	9	6.08
\$8 but under \$9,	6	—	4.41	—	6	4.05
\$9 but under \$10,	19	—	13.97	—	19	12.84
\$10 but under \$12,	45	—	33.09	—	45	30.40
\$12 but under \$15,	22	1	16.18	8.33	23	15.54
\$15 but under \$20,	24	—	17.65	—	24	16.22
\$20 and over,	3	—	2.20	—	3	2.03
TOTALS,	136	12	100.00	100.00	148	100.00

Classified Weekly Wages: By Industries—Continued.

FANCY ARTICLES.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	3	-	60.00	-	3	7.50
\$5 but under \$6,	1	4	20.00	11.43	5	12.50
\$6 but under \$7,	-	31	-	88.57	31	77.50
\$7 but under \$8,	-	-	-	-	-	-
\$8 but under \$9,	1	-	20.00	-	1	2.50
\$9 but under \$10,	-	-	-	-	-	-
\$10 but under \$12,	-	-	-	-	-	-
\$12 but under \$15,	-	-	-	-	-	-
\$15 but under \$20,	-	-	-	-	-	-
\$20 and over,	-	-	-	-	-	-
TOTALS,	5	35	100.00	100.00	40	100.00

FERTILIZERS.

Under \$5,	1	-	0.75	-	1	0.75
\$5 but under \$6,	2	-	1.49	-	2	1.49
\$6 but under \$7,	2	-	1.49	-	2	1.49
\$7 but under \$8,	86	-	64.18	-	86	64.18
\$8 but under \$9,	3	-	2.24	-	3	2.24
\$9 but under \$10,	9	-	6.72	-	9	6.72
\$10 but under \$12,	21	-	15.67	-	21	15.67
\$12 but under \$15,	5	-	3.73	-	5	3.73
\$15 but under \$20,	4	-	2.98	-	4	2.98
\$20 and over,	1	-	0.75	-	1	0.75
TOTALS,	134	-	100.00	-	134	100.00

FINE ARTS AND TAXIDERMISTRY.

Under \$5,	-	1	-	25.00	1	8.33
\$5 but under \$6,	2	1	25.00	25.00	3	25.00
\$6 but under \$7,	4	2	50.00	50.00	6	50.00
\$7 but under \$8,	-	-	-	-	-	-
\$8 but under \$9,	-	-	-	-	-	-
\$9 but under \$10,	-	-	-	-	-	-
\$10 but under \$12,	-	-	-	-	-	-
\$12 but under \$15,	2	-	25.00	-	2	16.67
\$15 but under \$20,	-	-	-	-	-	-
\$20 and over,	-	-	-	-	-	-
TOTALS,	8	4	100.00	100.00	12	100.00

FIREWORKS AND MATCHES.

Under \$5,	6	4	12.25	28.57	10	15.87
\$5 but under \$6,	1	3	2.04	21.43	4	6.35
\$6 but under \$7,	3	6	6.12	42.86	9	14.29
\$7 but under \$8,	3	-	6.12	-	3	4.76
\$8 but under \$9,	26	1	53.07	7.14	27	42.86
\$9 but under \$10,	3	-	6.12	-	3	4.76
\$10 but under \$12,	3	-	6.12	-	3	4.76
\$12 but under \$15,	3	-	6.12	-	3	4.76
\$15 but under \$20,	1	-	2.04	-	1	1.59
\$20 and over,	-	-	-	-	-	-
TOTALS,	49	14	100.00	100.00	63	100.00

Classified Weekly Wages: By Industries—Continued.

FLAX, HEMP, AND JUTE GOODS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	129	140	25.70	43.21	269	32.57
\$5 but under \$6,	45	60	8.96	18.52	105	12.71
\$6 but under \$7,	145	43	28.88	13.27	188	22.76
\$7 but under \$8,	40	75	7.97	23.15	115	13.92
\$8 but under \$9,	24	6	4.78	1.85	30	3.63
\$9 but under \$10,	60	—	11.95	—	60	7.27
\$10 but under \$12,	18	—	3.59	—	18	2.18
\$12 but under \$15,	31	—	6.13	—	31	3.75
\$15 but under \$20,	8	—	1.59	—	8	0.97
\$20 and over,	2	—	0.40	—	2	0.24
TOTALS,	502	324	100.00	100.00	826	100.00

FOOD PREPARATIONS.

Under \$5,	224	448	3.81	41.60	672	9.67
\$5 but under \$6,	181	211	3.08	19.59	392	5.64
\$6 but under \$7,	260	248	4.43	23.03	508	7.31
\$7 but under \$8,	387	95	6.59	8.82	482	6.94
\$8 but under \$9,	260	36	4.43	3.34	296	4.26
\$9 but under \$10,	1,152	16	19.62	1.48	1,168	16.81
\$10 but under \$12,	1,553	14	26.45	1.30	1,567	22.55
\$12 but under \$15,	1,283	5	21.85	0.46	1,288	18.53
\$15 but under \$20,	443	2	7.54	0.19	445	6.40
\$20 and over,	129	2	2.20	0.19	131	1.89
TOTALS,	5,872	1,077	100.00	100.00	6,949	100.00

FURNITURE.

Under \$5,	150	53	4.06	24.65	203	5.19
\$5 but under \$6,	90	41	2.44	19.07	131	3.35
\$6 but under \$7,	184	20	4.98	9.30	204	5.22
\$7 but under \$8,	241	29	6.52	13.49	270	6.90
\$8 but under \$9,	257	24	6.96	11.16	281	7.19
\$9 but under \$10,	484	12	13.10	5.58	496	12.69
\$10 but under \$12,	632	15	17.10	6.98	647	16.55
\$12 but under \$15,	926	18	25.06	8.37	944	24.14
\$15 but under \$20,	564	3	15.26	1.40	567	14.50
\$20 and over,	167	—	4.52	—	167	4.27
TOTALS,	3,695	215	100.00	100.00	3,910	100.00

GAS AND RESIDUAL PRODUCTS.

Under \$5,	3	—	0.30	—	3	0.30
\$5 but under \$6,	5	—	0.51	—	5	0.50
\$6 but under \$7,	33	1	3.34	100.00	34	3.44
\$7 but under \$8,	6	—	0.61	—	6	0.61
\$8 but under \$9,	70	—	7.09	—	70	7.08
\$9 but under \$10,	90	—	9.11	—	90	9.10
\$10 but under \$12,	267	—	27.02	—	267	27.00
\$12 but under \$15,	253	—	25.61	—	253	25.58
\$15 but under \$20,	234	—	23.68	—	234	23.66
\$20 and over,	27	—	2.73	—	27	2.73
TOTALS,	988	1	100.00	100.00	989	100.00

Classified Weekly Wages: By Industries—Continued.

GLASS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	90	31	16.70	54.39	121	20.30
\$5 but under \$6,	30	14	5.57	24.56	44	7.38
\$6 but under \$7,	44	4	8.16	7.02	48	8.06
\$7 but under \$8,	33	6	6.12	10.53	39	6.54
\$8 but under \$9,	29	1	5.38	1.75	30	5.03
\$9 but under \$10,	46	—	8.53	—	46	7.72
\$10 but under \$12,	38	1	7.05	1.75	39	6.54
\$12 but under \$15,	93	—	17.25	—	93	15.60
\$15 but under \$20,	88	—	16.33	—	88	14.77
\$20 and over,	48	—	8.91	—	48	8.06
TOTALS,	539	57	100.00	100.00	596	100.00

GLUE, ISINGLASS, AND STARCH.

Under \$5,	4	6	0.87	28.57	10	2.09
\$5 but under \$6,	15	—	3.28	—	15	3.13
\$6 but under \$7,	41	15	8.95	71.43	56	11.69
\$7 but under \$8,	47	—	10.26	—	47	9.81
\$8 but under \$9,	97	—	21.18	—	97	20.25
\$9 but under \$10,	116	—	25.33	—	116	24.22
\$10 but under \$12,	105	—	22.93	—	105	21.92
\$12 but under \$15,	22	—	4.80	—	22	4.59
\$15 but under \$20,	4	—	0.87	—	4	0.84
\$20 and over,	7	—	1.53	—	7	1.46
TOTALS,	458	21	100.00	100.00	479	100.00

HAIR WORK (ANIMAL AND HUMAN).

Under \$5,	14	2	21.54	3.18	16	12.50
\$5 but under \$6,	—	17	—	26.98	17	13.28
\$6 but under \$7,	7	19	10.77	30.15	26	20.31
\$7 but under \$8,	4	19	6.15	30.15	23	17.97
\$8 but under \$9,	2	—	3.08	—	2	1.56
\$9 but under \$10,	19	2	29.23	3.18	21	16.41
\$10 but under \$12,	14	2	21.54	3.18	16	12.50
\$12 but under \$15,	4	—	6.15	—	4	3.13
\$15 but under \$20,	1	2	1.54	3.18	3	2.34
\$20 and over,	—	—	—	—	—	—
TOTALS,	65	63	100.00	100.00	128	100.00

HOSE: RUBBER, LINEN, ETC.

Under \$5,	6	—	10.00	—	6	9.52
\$5 but under \$6,	1	—	1.67	—	1	1.59
\$6 but under \$7,	—	1	—	33.33	1	1.59
\$7 but under \$8,	2	—	3.33	—	2	3.17
\$8 but under \$9,	17	—	28.33	—	17	26.98
\$9 but under \$10,	13	—	21.67	—	13	20.64
\$10 but under \$12,	6	—	10.00	—	6	9.52
\$12 but under \$15,	6	2	10.00	66.67	8	12.70
\$15 but under \$20,	9	—	15.00	—	9	14.29
\$20 and over,	—	—	—	—	—	—
TOTALS,	60	3	100.00	100.00	63	100.00

Classified Weekly Wages: By Industries—Continued.

HOSIERY AND KNIT GOODS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	91	636	9.40	34.91	727	26.06
\$5 but under \$6,	78	448	8.06	24.59	526	18.85
\$6 but under \$7,	91	476	9.40	26.13	567	20.32
\$7 but under \$8,	139	179	14.36	9.82	318	11.40
\$8 but under \$9,	173	31	17.87	1.70	204	7.31
\$9 but under \$10,	161	43	16.63	2.36	204	7.31
\$10 but under \$12,	80	8	8.26	0.44	88	3.15
\$12 but under \$15,	93	1	9.61	0.05	94	3.37
\$15 but under \$20,	54	—	5.58	—	54	1.94
\$20 and over,	8	—	0.83	—	8	0.29
TOTALS,	968	1,822	100.00	100.00	2,790	100.00

INK, MUCILAGE, AND PASTE.

Under \$5,	6	3	24.00	75.00	9	31.03
\$5 but under \$6,	—	—	—	—	—	—
\$6 but under \$7,	—	—	—	—	—	—
\$7 but under \$8,	5	1	20.00	25.00	6	20.69
\$8 but under \$9,	2	—	8.00	—	2	6.90
\$9 but under \$10,	4	—	16.00	—	4	13.79
\$10 but under \$12,	2	—	8.00	—	2	6.90
\$12 but under \$15,	3	—	12.00	—	3	10.34
\$15 but under \$20,	1	—	4.00	—	1	3.45
\$20 and over,	2	—	8.00	—	2	6.90
TOTALS,	25	4	100.00	100.00	29	100.00

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

Under \$5,	71	64	12.05	38.79	135	17.90
\$5 but under \$6,	30	72	5.09	43.63	102	13.53
\$6 but under \$7,	88	23	14.94	13.94	111	14.72
\$7 but under \$8,	95	4	16.13	2.42	99	13.13
\$8 but under \$9,	62	1	10.53	0.61	63	8.36
\$9 but under \$10,	107	—	18.17	—	107	14.19
\$10 but under \$12,	58	—	9.85	—	58	7.69
\$12 but under \$15,	42	—	7.13	—	42	5.57
\$15 but under \$20,	30	—	5.09	—	30	3.98
\$20 and over,	6	1	1.02	0.61	7	0.93
TOTALS,	589	165	100.00	100.00	754	100.00

JEWELRY BURNISHING AND LAPIDARY WORK.

Under \$5,	1	—	50.00	—	1	50.00
\$5 but under \$6,	—	—	—	—	—	—
\$6 but under \$7,	—	—	—	—	—	—
\$7 but under \$8,	—	—	—	—	—	—
\$8 but under \$9,	—	—	—	—	—	—
\$9 but under \$10,	—	—	—	—	—	—
\$10 but under \$12,	—	—	—	—	—	—
\$12 but under \$15,	1	—	50.00	—	1	50.00
\$15 but under \$20,	—	—	—	—	—	—
\$20 and over,	—	—	—	—	—	—
TOTALS,	2	—	100.00	—	2	100.00

Classified Weekly Wages: By Industries — Continued.

LEATHER.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	110	15	1.59	17.24	125	1.78
\$5 but under \$6,	134	24	1.93	27.59	158	2.25
\$6 but under \$7,	261	6	3.76	6.90	267	3.80
\$7 but under \$8,	476	13	6.86	14.94	489	6.96
\$8 but under \$9,	805	12	11.60	13.79	817	11.63
\$9 but under \$10,	1,447	6	20.85	6.90	1,453	20.68
\$10 but under \$12,	1,741	2	25.09	2.30	1,743	24.81
\$12 but under \$15,	1,118	9	16.11	10.34	1,127	16.04
\$15 but under \$20,	722	—	10.41	—	722	10.27
\$20 and over,	125	—	1.80	—	125	1.78
TOTALS,	6,939	87	100.00	100.00	7,026	100.00

LINEN.

Under \$5,	96	214	28.32	80.15	310	51.15
\$5 but under \$6,	28	18	8.26	6.74	46	7.59
\$6 but under \$7,	22	32	6.49	11.99	54	8.91
\$7 but under \$8,	51	3	15.04	1.12	54	8.91
\$8 but under \$9,	41	—	12.09	—	41	6.77
\$9 but under \$10,	13	—	3.84	—	13	2.15
\$10 but under \$12,	18	—	5.31	—	18	2.97
\$12 but under \$15,	56	—	16.52	—	56	9.24
\$15 but under \$20,	12	—	3.54	—	12	1.98
\$20 and over,	2	—	0.59	—	2	0.33
TOTALS,	339	267	100.00	100.00	606	100.00

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

Under \$5,	3	—	1.66	—	3	1.63
\$5 but under \$6,	4	—	2.21	—	4	2.17
\$6 but under \$7,	13	2	7.18	66.67	15	8.15
\$7 but under \$8,	17	—	9.39	—	17	9.24
\$8 but under \$9,	32	—	17.68	—	32	17.39
\$9 but under \$10,	20	—	11.05	—	20	10.87
\$10 but under \$12,	30	1	16.57	33.33	31	16.85
\$12 but under \$15,	48	—	26.32	—	48	26.08
\$15 but under \$20,	7	—	3.87	—	7	3.81
\$20 and over,	7	—	3.87	—	7	3.81
TOTALS,	181	3	100.00	100.00	184	100.00

LIQUORS: MALT, DISTILLED, AND FERMENTED.

Under \$5,	10	1	1.23	25.00	11	1.35
\$5 but under \$6,	10	1	1.23	25.00	11	1.35
\$6 but under \$7,	15	1	1.85	25.00	16	1.96
\$7 but under \$8,	19	—	2.34	—	19	2.33
\$8 but under \$9,	59	1	7.27	25.00	60	7.35
\$9 but under \$10,	134	—	16.50	—	134	16.42
\$10 but under \$12,	224	—	27.59	—	224	27.45
\$12 but under \$15,	224	—	27.59	—	224	27.45
\$15 but under \$20,	84	—	10.34	—	84	10.30
\$20 and over,	33	—	4.06	—	33	4.04
TOTALS,	812	4	100.00	100.00	816	100.00

Classified Weekly Wages: By Industries—Continued.

LUMBER.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	40	-	4.04	-	40	4.03
\$5 but under \$6,	14	-	1.42	-	14	1.41
\$6 but under \$7,	85	-	8.59	-	85	8.57
\$7 but under \$8,	124	-	12.53	-	124	12.50
\$8 but under \$9,	113	-	11.41	-	113	11.39
\$9 but under \$10,	241	-	24.34	-	241	24.29
\$10 but under \$12,	130	1	13.13	50.00	131	13.21
\$12 but under \$15,	131	1	13.23	50.00	132	13.31
\$15 but under \$20,	93	-	9.39	-	93	9.37
\$20 and over,	19	-	1.92	-	19	1.92
TOTALS,	990	2	100.00	100.00	992	100.00

MACHINES AND MACHINERY.

Under \$5,	486	47	4.85	38.21	533	5.26
\$5 but under \$6,	442	16	4.41	13.01	458	4.52
\$6 but under \$7,	500	21	4.99	17.07	521	5.14
\$7 but under \$8,	770	16	7.69	13.01	786	7.75
\$8 but under \$9,	779	10	7.78	8.13	789	7.78
\$9 but under \$10,	1,310	7	13.08	5.69	1,317	12.99
\$10 but under \$12,	1,486	3	14.84	2.44	1,489	14.69
\$12 but under \$15,	2,337	1	23.34	0.81	2,338	23.06
\$15 but under \$20,	1,448	2	14.46	1.63	1,450	14.30
\$20 and over,	457	-	4.56	-	457	4.51
TOTALS,	10,015	123	100.00	100.00	10,138	100.00

METALS AND METALLIC GOODS.

Under \$5,	733	275	5.87	24.42	1,008	7.40
\$5 but under \$6,	574	249	4.59	22.11	823	6.04
\$6 but under \$7,	818	303	6.55	26.91	1,121	8.23
\$7 but under \$8,	946	202	7.57	17.94	1,148	8.43
\$8 but under \$9,	980	20	7.85	1.78	1,000	7.34
\$9 but under \$10,	1,695	37	13.57	3.28	1,732	12.72
\$10 but under \$12,	1,672	34	13.38	3.02	1,706	12.53
\$12 but under \$15,	2,526	2	20.22	0.18	2,528	18.57
\$15 but under \$20,	1,966	3	15.74	0.27	1,969	14.46
\$20 and over,	582	1	4.66	0.09	583	4.28
TOTALS,	12,492	1,126	100.00	100.00	13,618	100.00

MIXED TEXTILES.

Under \$5,	33	122	14.60	54.47	155	34.45
\$5 but under \$6,	4	23	1.77	10.27	27	6.00
\$6 but under \$7,	32	44	14.16	19.64	76	16.89
\$7 but under \$8,	38	16	16.81	7.14	54	12.00
\$8 but under \$9,	11	16	4.87	7.14	27	6.00
\$9 but under \$10,	38	-	16.81	-	38	8.45
\$10 but under \$12,	26	2	11.51	0.89	28	6.22
\$12 but under \$15,	29	-	12.83	-	29	6.44
\$15 but under \$20,	9	1	3.98	0.45	10	2.22
\$20 and over,	6	-	2.66	-	6	1.33
TOTALS,	226	224	100.00	100.00	450	100.00

Classified Weekly Wages: By Industries—Continued.

MODELS AND PATTERNS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	3	5	2.66	33.33	8	6.25
\$5 but under \$6,	1	-	0.89	-	1	0.78
\$6 but under \$7,	2	-	1.77	-	2	1.56
\$7 but under \$8,	4	4	3.54	26.67	8	6.25
\$8 but under \$9,	2	-	1.77	-	2	1.56
\$9 but under \$10,	9	3	7.96	20.00	12	9.38
\$10 but under \$12,	9	1	7.96	6.67	10	7.81
\$12 but under \$15,	21	2	18.58	13.33	23	17.97
\$15 but under \$20,	55	-	48.67	-	55	42.97
\$20 and over,	7	-	6.20	-	7	5.47
TOTALS,	113	15	100.00	100.00	128	100.00

MUSICAL INSTRUMENTS AND MATERIALS.

Under \$5,	48	-	3.62	-	48	3.55
\$5 but under \$6,	52	1	3.92	3.45	53	3.91
\$6 but under \$7,	25	12	1.89	41.38	37	2.73
\$7 but under \$8,	62	2	3.92	6.90	64	3.99
\$8 but under \$9,	55	6	4.15	20.69	61	4.51
\$9 but under \$10,	87	8	6.57	27.58	95	7.02
\$10 but under \$12,	205	-	15.47	-	205	15.14
\$12 but under \$15,	379	-	28.60	-	379	27.99
\$15 but under \$20,	328	-	24.76	-	328	24.22
\$20 and over,	94	-	7.10	-	94	6.94
TOTALS,	1,325	29	100.00	100.00	1,354	100.00

OILS AND ILLUMINATING FLUIDS.

Under \$5,	38	1	9.95	25.00	39	10.10
\$5 but under \$6,	6	-	1.57	-	6	1.55
\$6 but under \$7,	5	-	1.31	-	5	1.30
\$7 but under \$8,	9	2	2.36	50.00	11	2.85
\$8 but under \$9,	19	-	4.97	-	19	4.92
\$9 but under \$10,	89	-	23.30	-	89	23.06
\$10 but under \$12,	121	1	31.67	25.00	122	31.61
\$12 but under \$15,	73	-	19.11	-	73	18.91
\$15 but under \$20,	20	-	5.24	-	20	5.18
\$20 and over,	2	-	0.52	-	2	0.52
TOTALS,	382	4	100.00	100.00	386	100.00

PAINTS, COLORS, AND CRUDE CHEMICALS.

Under \$5,	7	2	4.07	9.52	9	4.66
\$5 but under \$6,	-	3	-	14.29	3	1.56
\$6 but under \$7,	5	11	2.91	52.38	16	8.29
\$7 but under \$8,	5	4	2.91	19.05	9	4.66
\$8 but under \$9,	5	1	2.91	4.76	6	3.11
\$9 but under \$10,	30	-	17.44	-	30	15.54
\$10 but under \$12,	40	-	23.25	-	40	20.73
\$12 but under \$15,	69	-	40.12	-	69	35.75
\$15 but under \$20,	11	-	6.39	-	11	5.70
\$20 and over,	-	-	-	-	-	-
TOTALS,	172	21	100.00	100.00	193	100.00

Classified Weekly Wages: By Industries—Continued.

PAPER AND PAPER GOODS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	105	780	2.73	29.68	885	13.66
\$5 but under \$6,	83	1,054	2.16	40.11	1,137	17.56
\$6 but under \$7,	165	413	4.29	15.71	578	8.92
\$7 but under \$8,	618	211	16.05	8.03	829	12.80
\$8 but under \$9,	616	88	16.00	3.35	704	10.87
\$9 but under \$10,	614	43	15.95	1.64	657	10.14
\$10 but under \$12,	505	10	13.12	0.38	515	7.95
\$12 but under \$15,	466	10	12.11	0.38	476	7.35
\$15 but under \$20,	386	15	10.03	0.57	401	6.19
\$20 and over,	291	4	7.56	0.15	295	4.56
TOTALS,	3,849	2,628	100.00	100.00	6,477	100.00

PERFUMES, TOILET ARTICLES, ETC.

Under \$5,	3	1	16.66	5.26	4	10.81
\$5 but under \$6,	2	3	11.11	15.79	5	13.51
\$6 but under \$7,	5	—	27.78	—	5	13.51
\$7 but under \$8,	2	14	11.11	73.69	16	43.25
\$8 but under \$9,	—	—	—	—	—	—
\$9 but under \$10,	—	1	—	5.26	1	2.70
\$10 but under \$12,	1	—	5.56	—	1	2.70
\$12 but under \$15,	2	—	11.11	—	2	5.41
\$15 but under \$20,	1	—	5.56	—	1	2.70
\$20 and over,	2	—	11.11	—	2	5.41
TOTALS,	18	19	100.00	100.00	37	100.00

PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

Under \$5,	15	19	7.65	18.09	34	11.30
\$5 but under \$6,	23	14	11.74	13.33	37	12.29
\$6 but under \$7,	21	9	10.71	8.57	30	9.97
\$7 but under \$8,	5	8	2.55	7.62	13	4.32
\$8 but under \$9,	12	11	6.12	10.48	23	7.64
\$9 but under \$10,	9	20	4.59	19.05	29	9.63
\$10 but under \$12,	28	17	14.29	16.19	45	14.95
\$12 but under \$15,	37	4	18.88	3.81	41	13.62
\$15 but under \$20,	28	3	14.29	2.86	31	10.30
\$20 and over,	18	—	9.18	—	18	5.98
TOTALS,	196	105	100.00	100.00	301	100.00

POLISHES AND DRESSING.

Under \$5,	7	—	7.00	—	7	6.14
\$5 but under \$6,	1	9	1.00	64.29	10	8.77
\$6 but under \$7,	—	1	—	7.14	1	0.88
\$7 but under \$8,	4	3	4.00	21.43	7	6.14
\$8 but under \$9,	5	—	5.00	—	5	4.38
\$9 but under \$10,	36	1	36.00	7.14	37	32.46
\$10 but under \$12,	18	—	18.00	—	18	15.79
\$12 but under \$15,	15	—	15.00	—	15	13.16
\$15 but under \$20,	8	—	8.00	—	8	7.02
\$20 and over,	8	—	6.00	—	6	5.26
TOTALS,	100	14	100.00	100.00	114	100.00

Classified Weekly Wages: By Industries — Continued.

PRINTING, PUBLISHING, AND BOOKBINDING.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	761	419	17.03	26.01	1,180	19.41
\$5 but under \$6,	260	258	5.82	16.01	518	8.52
\$6 but under \$7,	253	254	5.66	15.77	507	8.34
\$7 but under \$8,	229	213	5.12	13.22	442	7.27
\$8 but under \$9,	214	146	4.79	9.06	360	5.92
\$9 but under \$10,	268	100	6.00	6.21	368	6.05
\$10 but under \$12,	467	110	10.45	6.83	577	9.49
\$12 but under \$15,	780	74	17.45	4.59	854	14.05
\$15 but under \$20,	789	32	17.66	1.99	821	13.50
\$20 and over,	448	5	10.02	0.31	453	7.45
TOTALS,	4,469	1,611	100.00	100.00	6,080	100.00

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

Under \$5,	610	517	16.14	54.02	1,127	23.80
\$5 but under \$6,	271	246	7.17	25.71	517	10.92
\$6 but under \$7,	622	127	16.46	13.27	749	15.81
\$7 but under \$8,	850	37	22.49	3.87	887	18.73
\$8 but under \$9,	399	23	10.56	2.40	422	8.91
\$9 but under \$10,	359	4	9.50	0.42	363	7.66
\$10 but under \$12,	170	—	4.50	—	170	3.59
\$12 but under \$15,	174	2	4.61	0.21	176	3.72
\$15 but under \$20,	138	1	3.65	0.10	139	2.93
\$20 and over,	186	—	4.92	—	186	3.93
TOTALS,	3,779	957	100.00	100.00	4,736	100.00

RAILROAD CONSTRUCTION.

Under \$5,	7	—	0.62	—	7	0.61
\$5 but under \$6,	2	—	0.18	—	2	0.17
\$6 but under \$7,	18	10	1.58	83.33	28	2.44
\$7 but under \$8,	55	2	4.83	16.67	57	4.96
\$8 but under \$9,	107	—	9.40	—	107	9.30
\$9 but under \$10,	92	—	8.05	—	92	8.00
\$10 but under \$12,	229	—	20.12	—	229	19.91
\$12 but under \$15,	468	—	41.13	—	468	40.70
\$15 but under \$20,	150	—	13.18	—	150	13.04
\$20 and over,	10	—	0.88	—	10	0.87
TOTALS,	1,138	12	100.00	100.00	1,150	100.00

RUBBER AND ELASTIC GOODS.

Under \$5,	130	—	7.35	—	130	4.38
\$5 but under \$6,	71	165	4.02	13.77	236	7.66
\$6 but under \$7,	48	214	2.72	17.86	262	8.83
\$7 but under \$8,	307	229	17.36	19.12	536	18.07
\$8 but under \$9,	336	257	19.00	21.45	593	19.99
\$9 but under \$10,	300	248	16.97	20.70	548	18.48
\$10 but under \$12,	172	81	9.73	6.76	253	8.53
\$12 but under \$15,	167	3	9.45	0.25	170	5.73
\$15 but under \$20,	208	1	11.76	0.09	209	7.05
\$20 and over,	29	—	1.64	—	29	0.98
TOTALS,	1,768	1,198	100.00	100.00	2,966	100.00

Classified Weekly Wages: By Industries — Continued.

SALT.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	1	-	12.50	-	1	12.50
\$5 but under \$6,	-	-	-	-	-	-
\$6 but under \$7,	1	-	12.50	-	1	12.50
\$7 but under \$8,	-	-	-	-	-	-
\$8 but under \$9,	-	-	-	-	-	-
\$9 but under \$10,	2	-	25.00	-	2	25.00
\$10 but under \$12,	1	-	12.50	-	1	12.50
\$12 but under \$15,	2	-	25.00	-	2	25.00
\$15 but under \$20,	1	-	12.50	-	1	12.50
\$20 and over,	-	-	-	-	-	-
TOTALS,	8	-	100.00	-	8	100.00

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

Under \$5,	19	11	4.25	20.37	30	5.99
\$5 but under \$6,	24	17	5.37	31.48	41	8.18
\$6 but under \$7,	7	18	1.57	33.34	25	4.99
\$7 but under \$8,	45	2	10.07	3.70	47	9.38
\$8 but under \$9,	60	3	13.42	5.56	63	12.58
\$9 but under \$10,	40	2	8.95	3.70	42	8.38
\$10 but under \$12,	97	-	21.70	-	97	19.36
\$12 but under \$15,	84	1	18.79	1.85	85	16.97
\$15 but under \$20,	65	-	14.54	-	65	12.97
\$20 and over,	6	-	1.34	-	6	1.20
TOTALS,	447	54	100.00	100.00	501	100.00

SHIPBUILDING.

Under \$5,	18	2	2.27	14.29	20	2.48
\$5 but under \$6,	12	2	1.52	14.29	14	1.74
\$6 but under \$7,	16	2	2.02	14.29	18	2.24
\$7 but under \$8,	22	-	2.78	-	22	2.73
\$8 but under \$9,	26	1	3.29	7.13	27	3.35
\$9 but under \$10,	26	7	3.29	50.00	33	4.10
\$10 but under \$12,	76	-	9.61	-	76	9.44
\$12 but under \$15,	190	-	24.02	-	190	23.60
\$15 but under \$20,	302	-	38.18	-	302	37.52
\$20 and over,	103	-	13.02	-	103	12.80
TOTALS,	791	14	100.00	100.00	805	100.00

SILK AND SILK GOODS.

Under \$5,	69	168	14.87	18.10	237	17.03
\$5 but under \$6,	65	511	14.01	55.06	576	41.35
\$6 but under \$7,	50	158	10.78	17.03	208	14.94
\$7 but under \$8,	67	51	14.44	5.50	118	8.48
\$8 but under \$9,	42	24	9.05	2.59	66	4.74
\$9 but under \$10,	42	7	9.05	0.75	49	3.52
\$10 but under \$12,	33	5	7.11	0.54	38	2.73
\$12 but under \$15,	52	4	11.21	0.43	56	4.02
\$15 but under \$20,	31	-	6.68	-	31	2.23
\$20 and over,	13	-	2.80	-	13	0.93
TOTALS,	464	928	100.00	100.00	1,392	100.00

Classified Weekly Wages: By Industries — Continued.

SPORTING AND ATHLETIC GOODS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	7	4	4.52	22.22	11	6.36
\$5 but under \$6,	2	5	1.29	27.78	7	4.04
\$6 but under \$7,	39	8	25.16	44.44	47	27.17
\$7 but under \$8,	13	1	8.39	5.56	14	8.09
\$8 but under \$9,	1	-	0.64	-	1	0.58
\$9 but under \$10,	37	-	23.87	-	37	21.39
\$10 but under \$12,	21	-	13.55	-	21	12.14
\$12 but under \$15,	30	-	19.36	-	30	17.24
\$15 but under \$20,	4	-	2.58	-	4	2.31
\$20 and over,	1	-	0.64	-	1	0.58
TOTALS,	155	18	100.00	100.00	173	100.00

STONE.

Under \$5,	70	-	1.48	-	70	1.48
\$5 but under \$6,	50	-	1.05	-	50	1.05
\$6 but under \$7,	164	3	3.46	100.00	167	3.52
\$7 but under \$8,	196	-	4.13	-	196	4.13
\$8 but under \$9,	144	-	3.04	-	144	3.04
\$9 but under \$10,	654	-	13.80	-	654	13.79
\$10 but under \$12,	690	-	14.56	-	690	14.55
\$12 but under \$15,	1,082	-	22.83	-	1,082	22.81
\$15 but under \$20,	1,510	-	31.85	-	1,510	31.84
\$20 and over,	180	-	3.80	-	180	3.79
TOTALS,	4,740	3	100.00	100.00	4,743	100.00

STRAW AND PALM LEAF GOODS.

Under \$5,	5	29	0.90	3.21	34	2.33
\$5 but under \$6,	10	123	1.80	13.64	133	9.12
\$6 but under \$7,	21	95	3.78	10.53	116	7.96
\$7 but under \$8,	44	261	7.91	28.94	305	20.92
\$8 but under \$9,	57	44	10.25	4.88	101	6.93
\$9 but under \$10,	72	218	12.95	24.17	290	19.89
\$10 but under \$12,	136	13	24.46	1.44	149	10.22
\$12 but under \$15,	146	114	26.26	12.64	260	17.83
\$15 but under \$20,	57	5	10.25	0.55	62	4.25
\$20 and over,	8	-	1.44	-	8	0.55
TOTALS,	556	902	100.00	100.00	1,458	100.00

TALLOW, CANDLES, SOAP, AND GREASE.

Under \$5,	13	25	2.18	62.50	38	5.98
\$5 but under \$6,	28	7	4.71	17.50	35	5.51
\$6 but under \$7,	20	2	3.36	5.00	22	3.47
\$7 but under \$8,	28	4	4.71	10.00	32	5.04
\$8 but under \$9,	71	1	11.93	2.50	72	11.34
\$9 but under \$10,	122	1	20.50	2.50	123	19.37
\$10 but under \$12,	139	-	23.36	-	139	21.89
\$12 but under \$15,	106	-	17.82	-	106	16.69
\$15 but under \$20,	35	-	5.88	-	35	5.51
\$20 and over,	33	-	5.55	-	33	5.20
TOTALS,	595	40	100.00	100.00	635	100.00

Classified Weekly Wages: By Industries — Continued.

TOBACCO, SNUFF, AND CIGARS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	49	64	5.27	15.57	113	8.43
\$5 but under \$6,	27	75	2.91	18.25	102	7.61
\$6 but under \$7,	22	88	2.37	21.41	110	8.21
\$7 but under \$8,	36	61	3.87	14.84	97	7.24
\$8 but under \$9,	37	22	3.98	5.35	59	4.40
\$9 but under \$10,	73	43	7.86	10.46	116	8.66
\$10 but under \$12,	124	20	13.35	4.87	144	10.75
\$12 but under \$15,	353	29	38.00	7.06	382	28.51
\$15 but under \$20,	168	8	18.08	1.95	176	13.13
\$20 and over,	40	1	4.31	0.24	41	3.06
TOTALS,	929	411	100.00	100.00	1,340	100.00

TOYS AND GAMES (CHILDREN'S).

Under \$5,	16	11	7.34	19.30	27	9.82
\$5 but under \$6,	9	9	4.13	15.79	18	6.54
\$6 but under \$7,	13	12	5.96	21.05	25	9.09
\$7 but under \$8,	25	1	11.47	1.76	26	9.45
\$8 but under \$9,	33	-	15.14	-	33	12.00
\$9 but under \$10,	16	-	7.34	-	16	5.82
\$10 but under \$12,	21	-	9.63	-	21	7.64
\$12 but under \$15,	23	4	10.55	7.02	27	9.82
\$15 but under \$20,	12	10	5.50	17.54	22	8.00
\$20 and over,	50	10	22.94	17.54	60	21.82
TOTALS,	218	57	100.00	100.00	275	100.00

TRUNKS AND VALISES.

Under \$5,	2	-	2.78	-	2	2.70
\$5 but under \$6,	1	-	1.39	-	1	1.35
\$6 but under \$7,	6	-	8.33	-	6	8.11
\$7 but under \$8,	5	-	6.94	-	5	6.76
\$8 but under \$9,	7	-	9.72	-	7	9.46
\$9 but under \$10,	8	1	11.11	50.00	9	12.16
\$10 but under \$12,	29	1	40.28	50.00	30	40.54
\$12 but under \$15,	8	-	11.11	-	8	10.81
\$15 but under \$20,	4	-	5.56	-	4	5.41
\$20 and over,	2	-	2.78	-	2	2.70
TOTALS,	72	2	100.00	100.00	74	100.00

WHIPS, LASHES, AND STOCKS.

Under \$5,	11	10	5.76	9.71	21	7.14
\$5 but under \$6,	11	20	5.76	19.42	31	10.54
\$6 but under \$7,	9	39	4.71	37.86	48	16.33
\$7 but under \$8,	19	20	9.95	19.42	39	13.27
\$8 but under \$9,	14	8	7.33	7.77	22	7.48
\$9 but under \$10,	32	5	16.75	4.85	37	12.59
\$10 but under \$12,	43	1	22.51	0.97	44	14.97
\$12 but under \$15,	34	-	17.80	-	34	11.56
\$15 but under \$20,	14	-	7.33	-	14	4.76
\$20 and over,	4	-	2.10	-	4	1.36
TOTALS,	191	103	100.00	100.00	294	100.00

Classified Weekly Wages: By Industries — Concluded.

WOODEN GOODS.

CLASSIFICATION OF WEEKLY WAGE.	NUMBER OF PERSONS RECEIVING SPECIFIED WAGE		PERCENTAGES		Both Sexes	Per- centages
	Males	Females	Males	Females		
Under \$5,	126	41	6.39	50.00	167	8.13
\$5 but under \$6,	146	26	7.40	31.71	172	8.37
\$6 but under \$7,	187	9	6.95	10.97	146	7.11
\$7 but under \$8,	158	3	8.01	3.66	161	7.84
\$8 but under \$9,	211	1	10.70	1.22	212	10.32
\$9 but under \$10,	261	1	13.24	1.22	262	12.76
\$10 but under \$12,	327	1	16.58	1.22	328	15.97
\$12 but under \$15,	271	—	13.74	—	271	13.19
\$15 but under \$20,	281	—	14.25	—	281	13.68
\$20 and over,	54	—	2.74	—	54	2.63
TOTALS,	1,972	82	100.00	100.00	2,054	100.00

WOOLLEN GOODS.

Under \$5,	1,222	1,883	13.98	35.10	3,105	22.01
\$5 but under \$6,	677	584	7.74	10.89	1,261	8.94
\$6 but under \$7,	1,492	1,110	17.07	20.69	2,602	18.45
\$7 but under \$8,	1,607	924	18.38	17.23	2,531	17.94
\$8 but under \$9,	998	542	11.41	10.10	1,540	10.92
\$9 but under \$10,	861	169	9.85	3.15	1,030	7.30
\$10 but under \$12,	904	75	10.34	1.40	979	6.94
\$12 but under \$15,	506	27	5.79	0.50	533	3.78
\$15 but under \$20,	283	11	3.24	0.21	294	2.08
\$20 and over,	192	39	2.20	0.73	231	1.64
TOTALS,	8,742	5,364	100.00	100.00	14,106	100.00

WORSTED GOODS.

Under \$5,	342	1,204	12.75	35.06	1,546	25.27
\$5 but under \$6,	145	822	5.40	23.94	967	15.81
\$6 but under \$7,	472	1,181	17.59	32.94	1,603	26.21
\$7 but under \$8,	417	130	15.54	3.79	547	8.94
\$8 but under \$9,	209	74	7.79	2.15	283	4.63
\$9 but under \$10,	208	40	7.75	1.16	248	4.05
\$10 but under \$12,	456	33	17.00	0.96	489	7.99
\$12 but under \$15,	328	—	12.23	—	328	5.36
\$15 but under \$20,	70	—	2.61	—	70	1.15
\$20 and over,	36	—	1.34	—	36	0.59
TOTALS,	2,683	3,434	100.00	100.00	6,117	100.00

ALL INDUSTRIES.

Under \$5,	15,713	25,401	8.99	34.59	41,114	16.57
\$5 but under \$6,	8,482	14,719	4.85	20.04	23,201	9.35
\$6 but under \$7,	11,829	13,445	6.77	18.31	25,274	10.18
\$7 but under \$8,	14,663	7,920	8.39	10.79	22,583	9.10
\$8 but under \$9,	12,612	4,411	7.22	6.01	17,023	6.86
\$9 but under \$10,	19,596	3,122	11.21	4.25	22,718	9.15
\$10 but under \$12,	23,961	2,356	13.71	3.21	26,317	10.60
\$12 but under \$15,	33,847	1,307	19.37	1.78	35,154	14.16
\$15 but under \$20,	27,076	455	15.49	0.66	27,561	11.11
\$20 and over,	6,987	268	4.00	0.36	7,255	2.92
TOTALS,	174,766	73,434	100.00	100.00	248,200	100.00

ANALYSIS.

From the presentation for All Industries it appears that 41,114 employés, or 16.57 per cent of the total number for whom weekly wages are returned, are receiving less than \$5 weekly. Of these, 15,713 are males, this number being 8.99 per cent of total males; 25,401 are females, this number constituting 34.59 per cent of total females. The expressions "total males" and "total females," wherever used in this Analysis, refer to the total number of males or females for whom wages are returned, and not to the total number of males or females employed.

Employés receiving \$5 but under \$6 per week number 23,201, or 9.35 per cent of the total number for whom wages are reported, and these consist of 8,482 males and 14,719 females, being, respectively, 4.85 per cent and 20.04 per cent of the total number of males and females.

The next wage class comprises those receiving \$6 but under \$7 per week, and these number 25,274, or 10.18 per cent of the total number included in the wage presentation. This class includes 11,829 males and 13,445 females, or 6.77 per cent and 18.31 per cent, respectively, of the total number of males and females.

Employés who receive \$7 but under \$8 per week number 22,583, or 9.10 per cent of the total number included in the investigation, 14,663 being males and 7,920 females, or 8.39 per cent and 10.79 per cent, respectively, of the total number of males and females.

There are 17,023 employés reported in the class receiving \$8 but under \$9 per week. This number constitutes 6.86 per cent of the total number for whom wages are returned, and is made up of 12,612 males and 4,411 females, being, respectively, 7.22 per cent and 6.01 per cent of the total number of males and females. While in this class the males largely outnumber the females, it will be seen that, when expressed in percentages, the proportion of males of total males and the proportion of females of total females are about the same. This wage class, therefore, constitutes, so far as the equality of sexes is concerned, a medium wage class. Below it, the percentage of females in each class is considerably in excess of the

percentage of males, and this excess is more marked as the amount of weekly wages decreases. On the other hand, in each wage class above this the percentage of males is considerably in excess of the percentage of females, and the excess increases as the rate of wages increases.

The next wage class above this medium comprises operatives receiving \$9 but under \$10 weekly. In this class are included 19,596 males, or 11.21 per cent of total males, and 3,122 females, or 4.25 per cent of total females. Together, these operatives number 22,718, or 9.15 per cent of the total number of operatives for whom wages are reported.

The number of operatives receiving \$10 but under \$12 is 26,317, or 10.60 per cent of the total number. Nearly all are males, the number being 23,961, or 13.71 per cent of total males, as against 2,356 females, or 3.21 per cent of total females.

The next wage class comprises those receiving \$12 but under \$15, and includes 35,154 employés, or 14.16 per cent of the total number. The number of males included in this class is 33,847, and the number of females 1,307, being, respectively, 19.37 per cent and 1.78 per cent of the total number of males and females.

There are 27,561 operatives returned who receive \$15 but under \$20. This number forms 11.11 per cent of the total number; and only 485 females, or 0.66 per cent of total females are included within it, as against 27,076 males, or 15.49 per cent of total males.

Operatives who receive \$20 and over, weekly, number 7,255, or 2.92 per cent of the total number. Of these, 6,987 are males and 268 females, these constituting, respectively, four per cent and 0.36 per cent of the total males and females.

Of male operatives receiving less than \$7 per week a large proportion are, of course, minors. Such operatives number 36,024, or only 20.61 per cent of total males. The number of females included in this class is 53,565, and these constitute 72.94 per cent, or nearly three-fourths of the total number of females. Nearly half of this number of females receive less than \$5 per week. It therefore appears that the larger number of females receive wages approaching those of males who are minors. Of course many of the females are also minors.

Reference to each of the industry presentations will enable the reader to ascertain the percentages of males and females in each class in each industry, and, also, the percentage of all the operatives in each class. These sometimes vary widely, as is apparent from the table relating to All Industries. For instance, the percentage of females of total females who receive less than \$5 per week is more than twice as large as the percentage of all operatives, in that class, of the total number of operatives. The same is true of the class of operatives receiving \$5 but under \$6 per week. In fact, it is not until we reach what we have termed the medium wage class, namely, those receiving \$8 but under \$9, that the percentages of males and females of total males and females approach the percentage of all operatives, in the class, of the total number of operatives. The number of males receiving wages less than \$9 weekly constitutes 36.22 per cent of the total number of males, while, on the other hand, the number of females receiving similar wages constitutes 89.74 per cent of the total females. Only 38.86 per cent, or a little more than one-third of the total number of males, receive wages in excess of \$12 weekly, or in excess of \$2 per day, while only 2.80 per cent of the total number of females receive wages so high as this. The statistics contained in the presentation for All Industries are shown in a diagram upon page 434.

The table upon page 435 presents the percentages of operatives for whom wages are returned in each wage class of the total number of operatives in each classified industry.

<i>Persons receiving specified weekly wages.</i>	
<i>Under \$5</i>	
Males	15,713
Females	25,401
Both sexes	41,114
<i>\$5 but under \$6</i>	
Males	8,492
Females	14,719
Both sexes	23,201
<i>\$6 but under \$7</i>	
Males	11,829
Females	13,445
Both sexes	25,274
<i>\$7 but under \$8</i>	
Males	14,663
Females	7,820
Both sexes	22,533
<i>\$8 but under \$9</i>	
Males	12,612
Females	4,411
Both sexes	17,023
<i>\$9 but under \$10</i>	
Males	19,596
Females	3,122
Both sexes	22,718
<i>\$10 but under \$12</i>	
Males	23,961
Females	2,356
Both sexes	26,317
<i>\$12 but under \$15</i>	
Males	33,047
Females	1,307
Both sexes	35,154
<i>\$15 but under \$20</i>	
Males	27,076
Females	485
Both sexes	27,561
<i>\$20 and over</i>	
Males	6,987
Females	248
Both sexes	7,255

*Percentages of Persons Receiving Specified Weekly Wages of the Total
Number of Persons for whom Wages were Reported.*

INDUSTRIES.	Under \$5	\$5 but under \$6	\$6 but under \$7	\$7 but under \$8	\$8 but under \$9	\$9 but under \$10	\$10 but under \$12	\$12 but under \$15	\$15 but under \$20	\$20 and Over
Agricultural implements, .	5.74	2.23	7.50	14.19	10.85	13.08	22.65	13.40	8.61	1.75
Arms and ammunition, .	12.39	3.68	4.39	4.18	1.84	4.89	13.17	12.61	37.18	5.67
Artificial teeth and dental work,	20.52	5.13	-	2.56	2.56	2.56	41.03	-	17.95	7.69
Artisans' tools,	5.11	5.95	7.06	7.43	5.11	12.83	15.80	20.26	14.59	5.86
Awnings, tents, and decora- tions,	10.35	10.34	-	3.45	3.45	10.34	-	6.90	10.34	44.83
Boots and shoes,	6.53	4.66	6.93	7.70	8.49	10.20	13.82	21.53	16.67	3.47
Boxes (paper and wooden), .	15.26	10.08	10.47	13.18	9.06	12.16	14.78	11.14	3.29	0.58
Brick, tiles, and sewer pipe, .	25.45	3.21	1.95	6.32	12.38	19.97	14.01	7.38	2.85	6.48
Brooms, brushes, and mops, .	21.46	9.59	14.16	10.50	13.24	9.59	10.50	7.31	2.74	0.91
Building,	1.29	1.02	2.09	2.31	1.30	7.57	12.34	35.89	31.17	5.02
Burial cases, caskets, coffins, etc.,	5.32	4.25	3.90	4.25	4.61	10.29	16.67	29.79	15.60	5.32
Buttons and dress trimmings, .	27.05	21.31	13.93	9.02	3.28	3.28	1.64	8.19	9.02	3.28
Carpetings,	29.36	23.31	8.22	11.69	3.52	3.76	9.22	5.54	3.70	1.88
Carriages and wagons, . . .	2.29	1.86	3.80	3.34	3.80	10.65	14.44	31.23	25.65	2.94
Cement, kaolin, lime, and plaster,	-	-	1.15	21.84	31.04	12.64	12.64	8.05	1.15	11.49
Charcoal and kindlers, . . .	60.00	-	-	-	-	40.00	-	-	-	-
Chemical preparations (com- pounded),	1.96	1.31	0.65	1.31	-	10.46	54.90	24.84	4.57	-
Clocks and watches,	4.40	0.34	25.99	26.73	0.63	0.11	9.65	3.37	27.47	1.31
Clothing,	19.98	13.87	17.40	10.48	7.78	6.84	7.26	6.67	5.39	4.33
Concrete walks, paving, etc., .	4.47	-	-	17.88	8.38	21.23	29.61	16.76	1.67	-
Cooking, lighting, and heat- ing apparatus,	3.27	1.41	2.69	2.95	5.12	12.11	14.61	22.29	26.07	9.48
Cordage and twine,	44.58	11.80	7.49	3.29	11.97	8.40	4.08	3.74	3.52	1.13
Corks, bungs, and taps, . . .	49.09	10.91	14.54	-	3.64	5.45	3.64	3.64	9.09	-
Cotton goods,	40.06	19.61	14.81	10.14	5.05	3.92	2.94	1.62	1.25	0.60
Cotton, woollen, and other textiles,	40.15	12.81	19.87	12.81	3.06	4.32	2.90	2.08	1.39	0.61
Crayons, pencils, crucibles, etc.,	13.64	-	9.09	59.09	-	18.18	-	-	-	-
Drugs and medicines,	10.35	13.67	18.43	5.59	5.38	8.90	13.25	12.01	10.35	2.07
Dyestuffs,	1.77	3.54	4.42	8.85	22.12	19.47	28.32	8.85	0.89	1.77
Earthen, plaster, and stone ware,	11.68	1.50	5.09	6.88	3.59	25.75	15.27	16.17	9.88	4.19
Electrical apparatus and ap- pliances,	5.44	4.13	4.69	5.82	6.38	9.19	15.76	23.45	20.64	4.50
Electroplating,	11.91	1.59	11.90	8.73	2.38	19.84	11.11	14.29	15.87	2.38
Emery and sand paper and cloth, etc.,	3.38	1.35	8.11	6.08	4.05	12.84	30.40	15.54	16.22	2.03
Fancy articles,	7.50	12.50	77.50	-	2.50	-	-	-	-	-
Fertilizers,	0.75	1.49	1.49	64.18	2.24	6.72	15.67	3.73	2.98	0.75
Fine arts and taxidermy, . . .	8.33	25.00	50.00	-	-	-	-	16.67	-	-
Fireworks and matches, . . .	15.87	6.35	14.29	4.76	42.86	4.76	4.76	4.76	1.59	-
Flax, hemp, and jute goods, .	32.57	12.71	22.76	13.92	3.63	7.27	2.18	3.75	0.97	0.24

Percentages of Persons Receiving Specified Weekly Wages of the Total Number of Persons for whom Wages were Reported — Continued.

INDUSTRIES.	Under \$5	\$5 but under \$6	\$6 but under \$7	\$7 but under \$8	\$8 but under \$9	\$9 but under \$10	\$10 but under \$12	\$12 but under \$15	\$15 but under \$20	\$20 and Over
Food preparations, . . .	9.67	5.64	7.31	6.94	4.26	16.81	22.55	18.53	6.40	1.89
Furniture,	5.19	3.35	5.22	6.90	7.19	12.69	16.55	24.14	14.50	4.27
Gas and residual products, . .	0.30	0.50	3.44	0.61	7.08	9.10	27.00	25.58	23.66	2.73
Glass,	20.30	7.38	8.06	6.54	5.03	7.72	6.54	15.60	14.77	8.06
Glue, isinglass, and starch, .	2.09	3.13	11.69	9.81	20.25	24.22	21.92	4.59	0.84	1.46
Hair work (animal and human),	12.50	13.28	20.31	17.97	1.56	16.41	12.50	3.13	2.34	—
Hose: rubber, linen, etc., .	9.52	1.59	1.59	3.17	26.98	20.64	9.52	12.70	14.29	—
Hosiery and knit goods, .	26.06	18.85	20.32	11.40	7.31	7.31	3.15	3.37	1.94	0.29
Ink, mucilage, and paste, .	31.03	—	—	20.69	6.90	13.79	6.90	10.34	3.45	6.90
Ivory, bone, shell, and horn goods, etc.,	17.90	13.53	14.72	13.13	8.36	14.19	7.69	5.57	3.98	0.93
Jewelry burnishing and lapidary work,	50.00	—	—	—	—	—	—	50.00	—	—
Leather,	1.78	2.25	3.80	6.96	11.63	20.68	24.81	16.04	10.27	1.78
Linen,	51.15	7.59	8.91	8.91	6.77	2.15	2.97	9.24	1.98	0.33
Liquors and beverages (not spirituous),	1.63	2.17	8.15	9.24	17.39	10.87	16.85	26.08	3.81	3.81
Liquors: malt, distilled, and fermented,	1.35	1.35	1.96	2.33	7.35	16.42	27.45	27.45	10.30	4.04
Lumber,	4.03	1.41	8.57	12.50	11.39	24.29	13.21	13.31	9.37	1.92
Machines and machinery, .	5.26	4.52	5.14	7.75	7.78	12.99	14.69	23.06	14.30	4.51
Metals and metallic goods, .	7.40	6.04	8.23	8.43	7.34	12.72	12.53	18.57	14.46	4.28
Mixed textiles,	34.45	6.00	16.89	12.00	6.00	8.45	6.22	6.44	2.22	1.33
Models and patterns, . .	6.25	0.78	1.56	6.25	1.56	9.38	7.81	17.97	42.97	5.47
Musical instruments and materials,	3.55	3.91	2.73	3.99	4.51	7.02	15.14	27.99	24.22	6.94
Oils and illuminating fluids, .	10.10	1.55	1.30	2.85	4.92	23.06	31.61	18.91	5.18	0.52
Paints, colors, and crude chemicals,	4.66	1.56	8.29	4.66	3.11	15.54	20.73	35.75	5.70	—
Paper and paper goods, . .	13.66	17.56	8.92	12.80	10.87	10.14	7.93	7.35	6.19	4.56
Perfumes, toilet articles, etc.,	10.81	13.51	13.51	43.25	—	2.70	2.70	5.41	2.70	5.41
Photographs and photographic materials, . . .	11.30	12.29	9.97	4.32	7.64	9.63	14.95	13.62	10.30	5.98
Polishes and dressing, . .	6.14	8.77	0.88	6.14	4.38	32.46	15.79	13.16	7.02	5.26
Printing, publishing, and bookbinding,	19.41	8.52	8.34	7.27	5.92	6.05	9.49	14.05	13.50	7.45
Print works, dye works, and bleacheries,	23.80	10.92	15.81	18.73	8.91	7.66	3.59	3.72	2.93	3.93
Railroad construction, . .	0.61	0.17	2.44	4.96	9.30	8.00	19.91	40.70	13.04	0.87
Rubber and elastic goods, .	4.38	7.96	8.83	18.07	19.99	18.48	8.53	5.73	7.05	0.98
Salt,	12.50	—	12.50	—	—	25.00	12.50	25.00	12.50	—
Scientific instruments and appliances,	5.99	8.18	4.99	9.38	12.58	8.38	19.36	16.97	12.97	1.20
Shipbuilding,	2.48	1.74	2.24	2.73	3.35	4.10	9.44	23.60	37.52	12.80
Silk and silk goods, . . .	17.03	41.38	14.94	8.48	4.74	3.52	2.73	4.02	2.23	0.93
Sporting and athletic goods, .	6.26	4.04	27.17	8.09	0.58	21.39	12.14	17.34	2.31	0.58
Stone,	1.48	1.05	3.52	4.13	3.04	13.79	14.55	22.81	31.84	3.79

Percentages of Persons Receiving Specified Weekly Wages of the Total Number of Persons for whom Wages were Reported — Concluded.

INDUSTRIES.	Under \$5	\$5 but under \$6	\$6 but under \$7	\$7 but under \$8	\$8 but under \$9	\$9 but under \$10	\$10 but under \$12	\$12 but under \$15	\$15 but under \$20	\$20 and over
Straw and palm leaf goods, .	2.33	9.12	7.96	20.92	6.93	19.89	10.22	17.83	4.25	0.55
Tallow, candles, soap, and grease,	5.98	5.51	3.47	5.04	11.34	19.37	21.89	16.69	5.51	5.20
Tobacco, snuff, and cigars, .	8.43	7.61	8.21	7.24	4.40	8.66	10.75	28.51	13.13	3.06
Toys and games (children's),	9.82	6.54	9.09	9.45	12.00	5.82	7.64	9.82	8.00	21.82
Trunks and valises, . . .	2.70	1.35	8.11	6.76	9.46	12.16	40.54	10.81	5.41	2.70
Whips, lashes, and stocks, .	7.14	10.54	16.33	13.27	7.48	12.59	14.97	11.56	4.76	1.36
Wooden goods,	8.13	8.37	7.11	7.84	10.32	12.76	15.97	13.19	13.68	2.63
Woollen goods,	22.01	8.94	18.45	17.94	10.92	7.30	6.94	3.78	2.08	1.64
Worsted goods,	25.27	15.81	26.21	8.94	4.63	4.05	7.99	5.36	1.15	0.59
ALL INDUSTRIES,	16.57	9.35	10.18	9.10	6.86	9.15	10.60	14.16	11.11	2.92

It will be found, in many cases, that one wage class contains a much larger percentage of all persons employed in the industry than appears in any other class. For instance, in Agricultural Implements 22.65 per cent of the operatives receive weekly wages amounting to \$10 but under \$12. In Arms and Ammunition 37.18 per cent are found in the class receiving \$15 but under \$20 per week. In Artificial Teeth and Dental Work 41.03 per cent receive \$10 but under \$12 weekly. In Awnings, Tents, and Decorations the most numerous class receives \$20 and over, the number constituting 44.83 per cent of the total number. In Brooms, Brushes, and Mops 21.46 per cent appear in the lowest wage class, namely, those receiving less than \$5 per week. In Burial Cases, Caskets, Coffins, etc., 29.79 per cent are found in the class receiving \$12 but under \$15. In Chemical Preparations (Compounded) 54.90 per cent, more than one-half of the total number employed, receive \$10 but under \$12. In Cordage and Twine 44.58 per cent and in Corks, Bungs, and Taps 49.09 per cent are found in the lowest wage class, those receiving less than \$5 per week. In Crayons, Pencils, Crucibles, etc., 59.09 per cent appear in the class receiving \$7 but under \$8. In Earthen, Plaster, and Stone Ware 25.75 per cent are comprised in the class receiving \$9 but under \$10. In Emery and Sand Paper and Cloth, etc., 30.40 per cent are found in the class receiving \$10 but under \$12. In Fancy Articles 77.50 per cent, nearly

eight-tenths of the total number employed, receive \$6 but under \$7. In Fertilizers 64.18 per cent receive \$7 but under \$8. In Fine Arts and Taxidermy 50 per cent receive \$6 but under \$7. In Fireworks and Matches 42.86 per cent receive \$8 but under \$9.

In Boots and Shoes 21.53 per cent of the total number receive \$12 but under \$15, and 16.67 per cent receive \$15 but under \$20. Other industries in which each of two classes contains a considerably larger percentage of operatives than any other class are Brick, Tiles, and Sewer Pipe, in which 25.45 per cent receive less than \$5, and 19.97 per cent \$9 but under \$10; Building, in which 35.89 per cent receive \$12 but under \$15, and 31.17 per cent \$15 but under \$20; Buttons and Dress Trimmings, in which 27.05 per cent receive less than \$5, and 21.31 per cent \$5 but under \$6; Carpetings, in which 29.36 per cent receive less than \$5, and 23.31 per cent \$5 but under \$6; Carriages and Wagons, in which 31.23 per cent receive \$12 but under \$15, and 25.65 per cent \$15 but under \$20; Cement, Kaolin, Lime, and Plaster, in which 31.04 per cent receive \$8 but under \$9, and 21.84 per cent \$7 but under \$8; Charcoal and Kindlers, in which 60 per cent receive less than \$5, and 40 per cent \$9 but under \$10; Cooking, Lighting, and Heating Apparatus, in which 26.07 per cent receive \$15 but under \$20, and 22.29 per cent \$12 but under \$15; Electrical Apparatus and Appliances, in which 23.45 per cent receive \$12 but under \$15, and 20.64 per cent \$15 but under \$20; Flax, Hemp, and Jute Goods, in which 32.57 per cent receive less than \$5, and 22.76 per cent \$6 but under \$7; Hose: Rubber, Linen, etc., in which 26.98 per cent receive \$8 but under \$9, and 20.64 per cent \$9 but under \$10; Ink, Mucilage, and Paste, in which 31.03 per cent receive less than \$5, and 20.69 per cent \$7 but under \$8; Jewelry Burnishing and Lapidary Work, in which 50 per cent are returned as receiving less than \$5, and 50 per cent as receiving \$12 but under \$15; Liquors: Malt, Distilled, and Fermented, in which 27.45 per cent receive \$10 but under \$12, and the same percentage \$12 but under \$15; Musical Instruments and Materials, in which 27.99 per cent receive \$12 but under \$15, and 24.22 per cent \$15 but under \$20; Salt, in which 25 per cent receive \$9 but under \$10, and the same

percentage \$12 but under \$15; Shipbuilding, in which 37.52 per cent receive \$15 but under \$20, and 23.60 per cent \$12 but under \$15; and Stone, in which 31.84 per cent receive \$15 but under \$20, and 22.81 per cent \$12 but under \$15.

In the following industries the larger percentages are found in three different wage classes: Artisans' Tools, in which 20.26 per cent receive \$12 but under \$15, 15.80 per cent \$10 but under \$12, and 14.59 per cent \$15 but under \$20; Clocks and Watches, 25.99 per cent receive \$6 but under \$7, 27.47 per cent \$15 but under \$20, and 26.73 per cent \$7 but under \$8; Clothing, in which 19.98 per cent receive less than \$5, 17.40 per cent \$6 but under \$7, and 13.87 per cent \$5 but under \$6; Concrete Walks, Paving, etc., in which 29.61 per cent receive \$10 but under \$12, 21.23 per cent \$9 but under \$10, and 17.88 per cent \$7 but under \$8; Cotton Goods, in which 40.06 per cent receive less than \$5, 19.61 per cent \$5 but under \$6, and 14.81 per cent \$6 but under \$7; Dyestuffs, in which 28.32 per cent receive \$10 but under \$12, 22.12 per cent \$8 but under \$9, and 19.47 per cent \$9 but under \$10; Food Preparations, in which 22.55 per cent receive \$10 but under \$12, 18.53 per cent \$12 but under \$15, and 16.81 per cent \$9 but under \$10; Gas and Residual Products, in which 27 per cent receive \$10 but under \$12, 25.58 per cent \$12 but under \$15, and 23.66 per cent \$15 but under \$20; Glass, in which 20.30 per cent receive less than \$5, 15.60 per cent \$12 but under \$15, and 14.77 per cent \$15 but under \$20; Glue, Isinglass, and Starch, in which 24.22 per cent receive \$9 but under \$10, 21.92 per cent \$10 but under \$12, and 20.25 per cent \$8 but under \$9; Hair Work (Animal and Human), in which 20.31 per cent receive \$6 but under \$7, 17.97 per cent \$7 but under \$8, and 16.41 per cent \$9 but under \$10; Hosiery and Knit Goods, in which 26.06 per cent receive less than \$5, 20.32 per cent \$6 but under \$7, and 18.85 per cent \$5 but under \$6; Leather, in which 24.81 per cent receive \$10 but under \$12, 20.68 per cent \$9 but under \$10, and 16.04 per cent \$12 but under \$15; Print Works, Dye Works, and Bleacheries, in which 23.80 per cent receive less than \$5, 18.73 per cent \$7 but under \$8, and 15.81 per cent \$6 but under \$7; Rubber and Elastic Goods, in which 19.99 per cent receive \$8 but under \$9, 18.48 per cent \$9 but under \$10, and 18.07 per cent

\$7 but under \$8; Silk and Silk Goods, in which 41.38 per cent receive \$5 but under \$6, 17.03 per cent less than \$5, and 14.94 per cent \$6 but under \$7; Sporting and Athletic Goods, in which 27.17 per cent receive \$6 but under \$7, 21.39 per cent \$9 but under \$10, and 17.34 per cent \$12 but under \$15; Straw and Palm Leaf Goods, in which 20.92 per cent receive \$7 but under \$8, 19.89 per cent \$9 but under \$10, and 17.83 per cent \$12 but under \$15; Tallow, Candles, Soap, and Grease, in which 21.89 per cent receive \$10 but under \$12, 19.37 per cent \$9 but under \$10, and 16.69 per cent \$12 but under \$15; Woollen Goods, in which 22.01 per cent receive less than \$5, 18.45 per cent \$6 but under \$7, and 17.94 per cent \$7 but under \$8; and Worsted Goods, in which 26.21 per cent receive \$6 but under \$7, 25.27 per cent less than \$5, and 15.81 per cent \$5 but under \$6.

In Drugs and Medicines 18.43 per cent receive \$6 but under \$7, 13.67 per cent \$5 but under \$6, and 13.25 per cent \$10 but under \$12, these three classes having larger percentages than any of the others, although the percentage in the last-named class is not much larger than in some of the others. In Electroplating 19.84 per cent receive \$9 but under \$10, 15.87 per cent \$15 but under \$20, and 14.29 per cent \$12 but under \$15. In the classes receiving less than \$5, \$6 but under \$7, and \$10 but under \$12, the percentages range from 11.11 to 11.91. In Furniture 24.14 per cent receive \$12 but under \$15, 16.55 per cent \$10 but under \$12, 14.50 per cent \$15 but under \$20, and 12.69 per cent \$9 but under \$10. In Ivory, Bone, Shell, and Horn Goods 17.90 per cent receive less than \$5. In the classes receiving \$5 but under \$6, \$6 but under \$7, \$7 but under \$8, and \$9 but under \$10, the percentages are, respectively, 13.53, 14.72, 13.13, and 14.19. In Metals and Metallic Goods 18.57 per cent receive \$12 but under \$15, 14.46 per cent \$15 but under \$20, 12.72 per cent \$9 but under \$10, and 12.53 per cent \$10 but under \$12. In Paper and Paper Goods 17.56 per cent receive \$5 but under \$6, 13.66 per cent less than \$5, 12.80 per cent \$7 but under \$8, 10.87 per cent \$8 but under \$9, and 10.14 per cent \$9 but under \$10. In Scientific Instruments and Appliances 19.36 per cent receive \$10 but under \$12, 16.97 per cent \$12 but under \$15, 12.97 per cent \$15 but under \$20, and 12.58 per

cent \$8 but under \$9. In Whips, Lashes, and Stocks 16.33 per cent receive \$6 but under \$7, 14.97 per cent \$10 but under \$12, 13.27 per cent \$7 but under \$8, 12.59 per cent \$9 but under \$10, and 10.54 per cent \$5 but under \$6. In Wooden Goods 15.97 per cent receive \$10 but under \$12, 13.68 per cent \$15 but under \$20, 13.19 per cent \$12 but under \$15, 12.76 per cent \$9 but under \$10, and 10.32 per cent \$8 but under \$9.

No deductions should be drawn respecting any industry without comparing the percentages relating to all persons employed, given in the table, with the percentages relating to each sex contained in the special industry tabulations preceding it. A large proportion of male minors, and of females, whether minors or not, in any industry, tends towards a large percentage in the lower wage classes; for, as we have pointed out, the wages of such operatives are similar, and are considerably below the medium rate.

In some cases the proportion of operatives of each sex is so large in certain classes that the larger percentages of all persons fall within the same classes. This is the case in Cotton Goods, in which 28.61 per cent of the males and 49.70 per cent of the females receive less than \$5 per week, and the percentage of all persons within this class is 40.06. In the next wage class, those receiving \$5 but under \$6, are found 14.47 per cent of the males and 23.94 per cent of the females; and 19.61 per cent of all persons employed fall within the same class.

Sometimes the percentage of operatives of one sex in certain classes preponderates so far over the percentage of those of the opposite sex in any single class as to fix the larger percentage of all persons in the same classes. This is the case in Boots and Shoes, in which 27.80 per cent of the males receive \$12 but under \$15, and 22.81 per cent \$15 but under \$20; and these are the classes that also show the larger percentages of all persons employed.

Sometimes, again, while the preponderating sex in any single class causes the largest percentage of all persons to fall within the same class, the distribution of the sexes will vary as to the percentages in the other classes from those applicable to all persons. The cordage and twine industry illustrates this.

Of the females, 71.31 per cent receive less than \$5 per week, and this large percentage of females causes the largest percentage of all persons employed to fall within the same class. But, while the next largest percentage of all persons is found within the class receiving \$8 but under \$9, the next largest percentage as to either sex is found in the class receiving \$5 but under \$6, in which 22.27 per cent of the females are included.

In some cases the proportion of either sex in any class is far different from that of all persons in the same class. In Leather the largest wage class including all persons is that receiving \$10 but under \$12, 24.81 per cent being found therein; but 27.59 per cent of all the females employed are found in the class receiving \$5 but under \$6, very few females being employed. In Woollen Goods, while 22.01 per cent of all persons receive less than \$5, 35.10 per cent of all the females are paid at this rate, and only 13.98 per cent of the males. In the class receiving \$10 but under \$12, 10.34 per cent of the males are found, and only 1.40 per cent of the females. These are two cases out of many in which the percentage of all persons employed who receive specified wages is not indicative of the percentages of either sex receiving such wages. In fact, the percentages relating to all persons employed always partake of the nature of an average, and in the uses that are made of them are subject to limitations similar to those which affect the use of averages. They should always be compared with the elements from which they are derived.

In conclusion the following summary is presented:

The returns of actual wages paid to 248,200 employes including both sexes, being 65.43 per cent of all persons employed in the manufacturing and mechanical industries of Massachusetts, show that 8.99 per cent of all males receive less than \$5 per week, 4.85 per cent \$5 but under \$6, and 6.77 per cent \$6 but under \$7; these males, principally minors, who comprise 20.61 per cent, or about one-fifth, of all males, average less than \$1 per day. Of all females employed, 72.94 per cent, whether minors or not, are paid similar wages.

On the other hand, 11.21 per cent of all males receive \$9

but under \$10 per week, 13.71 per cent \$10 but under \$12, 19.37 per cent \$12 but under \$15, and 19.49 per cent \$15 or over; these males, who comprise 63.78 per cent, or nearly two-thirds, of all males, receive \$1.50 or more per day. Only 10.26 per cent of the females employed are paid similar wages.

The wages of minors and of all females, whether minors or not, approach each other.

The medium wage class, so far as relates to equality of sexes, or that class in which the proportion of each sex receiving specified wages approaches the proportion of all persons employed, receiving the same wages, is that in which the operatives receive \$8 but under \$9 per week. In this class are found 7.22 per cent of all males employed, 6.01 per cent of all females employed, and 6.86 per cent of all persons employed without regard to sex. Below this rate of wages the percentage of females in each wage class rapidly increases, while above it the percentage of females in each class more rapidly decreases. The converse is true with respect to males.

PART VI.

DAILY WORKING TIME.

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The predominant question of interest to manual workers is, at present, the shortening of the working day. Legislation in this direction, whether it be expedient or not, is persistently asked for both in this country and abroad, and, either through legislation or without it, the tendency seems to be toward shorter working time in the near future.

Legislation in the United States upon such matters frequently originates in a single State, and is gradually extended to others. This was the case with the ten-hour law in Massachusetts. But legislation, while confined to a single State, may work great injury to industrial enterprises which must meet competition arising in other States wherein different conditions prevail. In such cases it is not capital alone, nor chiefly, that suffers. The mobility of capital is to-day in excess of the mobility of labor. If diverted from Massachusetts it may find ready employment in the South and West. In many of our industries competition within the so-called home market is severely felt, and Massachusetts capital is even now going elsewhere. The interests of both capital and labor lie in maintaining our industrial position, and therefore it happens that, aside from theories as to whether or not this subject is properly within the province of legislation, the matter is surrounded with difficulties.

What legislation may not accomplish may be brought about through the play of economic forces. These forces are not altogether material; they include the spirit of concession on the part of capitalists and the spirit of importunity on the part

of employés. Agitation by those favorable to the movement will inevitably play its part. This, if tempered with moderation, and a right understanding of economic conditions, may bring about a peaceful solution of the whole question.

There are few employers, we believe, who would not welcome a shorter working day if it could be accomplished without industrial disaster. The workingmen are equally few who would desire it on other terms.

A current political economy has made the question of profits its central idea, and has constantly taught that only as wages fell could profits rise. A somewhat different economic theory is possible. This rests upon the fact that the mass of the people must always furnish the market upon which the manufacturer depends for sales and, therefore, for profits. Hence in proportion as the social wants of the masses increase, the demand for products must increase, or, in other words, production depends directly upon consumption; and, as the masses always are and probably must always continue to be the workers, whatever tends to raise the standard of living among the workers, and to increase their social wants, will inevitably tend to expand production and thereby increase profits.

If higher wages and shorter working time tend to raise the standard of living among the workers, then they also tend to increase profits; thus the welfare of the capitalist and the workers is again seen to be reciprocal. To suppose that increased time to devote to other objects than labor will not finally tend to raise the standard of living among manual workers, is to suppose them different from other classes, and insensible to the progressive influence of civilization. Past experience contradicts this, and no one will now seriously advance such a proposition.

A common argument against a shorter working day is based upon the assumption that production is now carried to its full limit and, therefore, that less time devoted to production per day would result in a smaller aggregate product, and the gross amount of product being reduced, a loss both in profits and in wages would result. But, as a matter of fact, production is now far below its possible limit. Very few establishments are run to their full capacity and large numbers of operatives are out of employment in their usual occupations

for a portion of the time each year. Production is practically unlimited so far as the resources of manufacturers are concerned. It is limited only by consumption, or, in other words, by the demand. Consumption is limited by the non-employment of workers or by reduction of wages. If employment, although less per day, were continued through more days than now, or if during busy seasons more persons were employed, although for less time each day, the aggregate sum of wages might be increased and the resulting increase in consumption would be met by increased production; or, the gross amount of product being increased, a gain both in profits and in wages would result.

It is not our object in this Part to cite arguments for shorter working time but to determine statistically the length of the present working day. A review of what the working day now is, may afford some light as to whether it is, or is not, what it ought to be, and will, at least, exhibit the tendency, either upward or downward, in working time. Lord Randolph Churchill has said that in an "eight hour system, giving one-third to work, one-third to sleep, and one-third to recreation, there seems to be a natural and equitable adjustment, one that appeals to both reason and humanity." How near is that adjustment approached in Massachusetts? So far as it can be answered by returns from the establishments engaged in manufacturing, this question is answered in the succeeding tables.

The first division of the subject relates to the daily working time for women and minors, and for male adults considered separately, and for all persons on Saturday. The returns are complete. They cover all the establishments in each industry in operation at the time of investigation. Since the returns were secured, great progress has been made in the building industry toward shorter working time, especially in the cities and larger towns, where nine hours per day may be said to be the rule. In every other industry present conditions are indicated in the returns.

The statistical tables which follow will be analyzed at their close.

DAILY WORKING TIME FOR WOMEN AND MINORS, MALE ADULTS, AND
ALL PERSONS ON SATURDAY: BY INDUSTRIES.

NUMBER AND PERCENTAGES FOR ESTABLISHMENTS.

AGRICULTURAL IMPLEMENTS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	3.33
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	4	-	-	13.34
Between 9 and 10 hours,	-	-	1	-	-	3.33
10 hours,	5	30	12	16.67	100.00	40.00
More than 10 hours,	-	-	-	-	-	-
Not employed,	25	-	-	83.33	-	-
Not stated,	-	-	12	-	-	40.00
TOTALS,	30	30	30	100.00	100.00	100.00

ARMS AND AMMUNITION.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	5	3	2.50	12.50	7.50
Between 8 and 9 hours,	-	1	2	-	2.50	5.00
9 hours,	1	2	2	2.50	5.00	5.00
Between 9 and 10 hours,	-	-	2	-	-	5.00
10 hours,	11	31	15	27.50	77.50	37.50
More than 10 hours,	1	1	-	2.50	2.50	-
Not employed,	26	-	-	65.00	-	-
Not stated,	-	-	16	-	-	40.00
TOTALS,	40	40	40	100.00	100.00	100.00

ARTIFICIAL TEETH AND DENTAL WORK.

Under 7 hours,	2	10	8	0.41	2.05	1.64
7 hours,	1	7	3	0.20	1.43	0.61
Between 7 and 8 hours,	-	-	1	-	-	0.20
8 hours,	8	360	22	1.64	73.62	4.50
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	25	5	-	5.11	1.02
Between 9 and 10 hours,	-	1	-	-	0.20	-
10 hours,	2	74	12	0.41	15.13	2.46
More than 10 hours,	1	12	5	0.20	2.46	1.02
Not employed,	475	-	-	97.14	-	-
Not stated,	-	-	433	-	-	88.55
TOTALS,	489	489	489	100.00	100.00	100.00

ARTISANS' TOOLS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	1	-	1	0.71	-	0.71
Between 7 and 8 hours,	-	-	1	-	-	0.71
8 hours,	1	6	7	0.71	4.28	5.00
Between 8 and 9 hours,	-	-	5	-	-	3.57
9 hours,	1	2	34	0.71	1.43	24.29
Between 9 and 10 hours,	-	-	3	-	-	2.14
10 hours,	21	130	32	15.00	92.86	22.86
More than 10 hours,	1	2	-	0.71	1.43	-
Not employed,	115	-	-	82.16	-	-
Not stated,	-	-	57	-	-	40.72
TOTALS,	140	140	140	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

AWNINGS, TENTS, AND DECORATIONS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	1	-	2	7.14	-	14.29
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	8	14	4	57.14	100.00	28.57
More than 10 hours,	-	-	-	-	-	-
Not employed,	5	-	-	35.72	-	-
Not stated,	-	-	8	-	-	57.14
TOTALS,	14	14	14	100.00	100.00	100.00

BOOTS AND SHOES.

Under 7 hours,	-	2	24	-	0.09	1.01
7 hours,	3	-	16	0.13	-	0.67
Between 7 and 8 hours,	-	-	4	-	-	0.17
8 hours,	38	30	54	1.61	1.27	2.28
Between 8 and 9 hours,	1	1	14	0.04	0.04	0.59
9 hours,	48	32	631	2.03	1.35	26.67
Between 9 and 10 hours,	5	5	20	0.21	0.21	0.85
10 hours,	822	2,257	2,241	34.74	95.39	13.99
More than 10 hours,	3	31	20	0.13	1.31	0.85
Not employed,	1,446	8	-	61.11	0.34	-
Not stated,	-	-	1,252	-	-	52.92
TOTALS,	2,366	2,366	2,366	100.00	100.00	100.00

BOXES (PAPER AND WOODEN).

Under 7 hours,	-	-	3	-	-	1.40
7 hours,	-	-	1	-	-	0.46
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	3	1	10	1.40	0.46	4.65
Between 8 and 9 hours,	-	-	6	-	-	2.79
9 hours,	10	6	52	4.65	2.79	24.19
Between 9 and 10 hours,	1	-	5	0.46	-	2.33
10 hours,	93	205	80	43.26	95.35	37.21
More than 10 hours,	-	3	1	-	1.40	0.46
Not employed,	108	-	-	50.23	-	-
Not stated,	-	-	57	-	-	26.51
TOTALS,	215	215	215	100.00	100.00	100.00

BRICK, TILES, AND SEWER PIPE.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	1	-	-	0.88
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	1	-	0.88	0.88	-
Between 8 and 9 hours,	-	-	2	-	-	1.75
9 hours,	-	-	15	-	-	13.16
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	14	74	37	12.28	64.91	32.45
More than 10 hours,	8	39	19	7.02	34.21	16.67
Not employed,	91	-	-	79.82	-	-
Not stated,	-	-	40	-	-	35.09
TOTALS,	114	114	114	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

BROOMS, BRUSHES, AND MOPS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	—	—	4	—	—	5.55
7 hours,	1	—	2	1.39	—	2.78
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	1	1	4	1.39	1.39	5.55
Between 8 and 9 hours,	2	—	3	2.78	—	4.17
9 hours,	3	5	12	4.17	6.94	16.67
Between 9 and 10 hours,	1	1	1	1.39	1.39	1.39
10 hours,	15	64	10	20.83	88.89	13.89
More than 10 hours,	—	1	—	—	1.39	—
Not employed,	49	—	—	68.05	—	—
Not stated,	—	—	36	—	—	50.00
TOTALS,	72	72	72	100.00	100.00	100.00

BUILDING.

Under 7 hours,	—	—	7	—	—	0.19
7 hours,	—	—	3	—	—	0.08
Between 7 and 8 hours,	—	—	1	—	—	0.03
8 hours,	5	10	64	0.13	0.26	1.70
Between 8 and 9 hours,	2	3	11	0.05	0.08	0.29
9 hours,	—	20	385	—	0.53	10.20
Between 9 and 10 hours,	—	2	12	—	0.05	0.32
10 hours,	200	3,734	1,292	5.30	98.97	34.24
More than 10 hours,	—	4	3	—	0.11	0.08
Not employed,	3,566	—	—	94.52	—	—
Not stated,	—	—	1,995	—	—	52.87
TOTALS,	3,773	3,773	3,773	100.00	100.00	100.00

BURIAL CASES, CASKETS, COFFINS, ETC.

Under 7 hours,	—	1	—	—	0.88	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	1	—	—	0.88
8 hours,	—	2	2	—	1.77	1.77
Between 8 and 9 hours,	—	—	2	—	—	1.77
9 hours,	1	1	6	0.88	0.88	5.31
Between 9 and 10 hours,	—	—	1	—	—	0.88
10 hours,	11	108	17	9.74	95.59	15.05
More than 10 hours,	—	1	—	—	0.88	—
Not employed,	101	—	—	89.53	—	—
Not stated,	—	—	84	—	—	74.24
TOTALS,	113	113	113	100.00	100.00	100.00

BUTTONS AND DRESS TRIMMINGS.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	1	1	—	6.25	6.25	—
Between 8 and 9 hours,	—	—	2	—	—	12.50
9 hours,	1	—	2	6.25	—	12.50
Between 9 and 10 hours,	—	—	2	—	—	12.50
10 hours,	11	14	6	68.75	87.50	37.50
More than 10 hours,	—	—	—	—	—	—
Not employed,	3	1	—	18.75	6.25	—
Not stated,	—	—	4	—	—	25.00
TOTALS,	16	16	16	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

CARPETINGS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	4	-	-	8.70
7 hours,	-	1	-	-	2.17	-
Between 7 and 8 hours,	-	-	1	-	-	2.17
8 hours,	2	2	2	4.35	4.35	4.35
Between 8 and 9 hours,	-	-	4	-	-	8.70
9 hours,	-	-	3	-	-	6.52
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	26	33	1	56.52	71.74	2.17
More than 10 hours,	-	-	-	-	-	-
Not employed,	18	10	-	39.13	21.74	-
Not stated,	-	-	31	-	-	67.39
TOTALS,	46	46	46	100.00	100.00	100.00

CARRIAGES AND WAGONS.

Under 7 hours,	1	2	2	0.10	0.20	0.20
7 hours,	-	1	-	-	0.10	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	3	10	0.10	0.29	0.99
Between 8 and 9 hours,	-	2	1	-	0.20	0.10
9 hours,	2	-	80	0.20	-	7.89
Between 9 and 10 hours,	-	-	1	-	-	0.10
10 hours,	77	1,003	323	7.60	99.01	31.88
More than 10 hours,	-	2	2	-	0.20	0.20
Not employed,	932	-	-	92.00	-	-
Not stated,	-	-	594	-	-	58.64
TOTALS,	1,013	1,013	1,013	100.00	100.00	100.00

CEMENT, KAOLIN, LIME, AND PLASTER.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	5	-	-	31.25
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	2	15	7	12.50	93.75	43.75
More than 10 hours,	-	1	1	-	6.25	6.25
Not employed,	14	-	-	87.50	-	-
Not stated,	-	-	3	-	-	18.75
TOTALS,	16	16	16	100.00	100.00	100.00

CHARCOAL AND KINDLERS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	1	-	-	9.09	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	-	10	1	-	90.91	9.09
More than 10 hours,	-	-	-	-	-	-
Not employed,	11	-	-	100.00	-	-
Not stated,	-	-	10	-	-	90.91
TOTALS,	11	11	11	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

CHEMICAL PREPARATIONS (COMPOUNDED).

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	3	-	-	13.04
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	1	1	3	4.35	4.35	13.04
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	4	21	10	17.39	91.30	43.48
More than 10 hours,	-	1	-	-	4.35	-
Not employed,	18	-	-	78.26	-	-
Not stated,	-	-	7	-	-	30.44
TOTALS,	23	23	23	100.00	100.00	100.00

CLOCKS AND WATCHES.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	1	1	-	2.13	2.13
8 hours,	-	1	-	-	2.13	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	2	3	9	4.26	6.38	19.15
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	11	42	1	23.40	89.36	2.13
More than 10 hours,	-	-	-	-	-	-
Not employed,	34	-	-	72.34	-	-
Not stated,	-	-	36	-	-	76.59
TOTALS,	47	47	47	100.00	100.00	100.00

CLOTHING.

Under 7 hours,	3	3	9	0.12	0.12	0.37
7 hours,	4	1	12	0.17	0.04	0.50
Between 7 and 8 hours,	-	-	9	-	-	0.37
8 hours,	72	19	74	3.00	0.79	3.08
Between 8 and 9 hours,	7	6	17	0.29	0.25	0.71
9 hours,	370	88	183	15.40	3.67	7.83
Between 9 and 10 hours,	50	19	28	2.08	0.79	1.17
10 hours,	1,410	984	360	58.70	40.97	14.99
More than 10 hours,	42	31	116	1.75	1.29	4.83
Not employed,	444	1,251	-	18.49	52.08	-
Not stated,	-	-	1,589	-	-	66.15
TOTALS,	2,402	2,402	2,402	100.00	100.00	100.00

CONCRETE WALKS, PAVING, ETC.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	4	-	-	20.00
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	1	20	10	5.00	100.00	50.00
More than 10 hours,	-	-	-	-	-	-
Not employed,	19	-	-	95.00	-	-
Not stated,	-	-	6	-	-	30.00
TOTALS,	20	20	20	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

COOKING, LIGHTING, AND HEATING APPARATUS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	1.54
Between 8 and 9 hours,	-	-	6	-	-	9.23
9 hours,	1	3	16	1.54	4.61	24.62
Between 9 and 10 hours,	-	1	1	-	1.54	1.54
10 hours,	19	60	19	29.23	92.31	29.23
More than 10 hours,	-	1	-	-	1.54	-
Not employed,	45	-	-	69.23	-	-
Not stated,	-	-	22	-	-	33.84
TOTALS,	65	65	65	100.00	100.00	100.00

CORDAGE AND TWINE.

Under 7 hours,	-	1	4	-	1.92	7.69
7 hours,	-	-	2	-	-	-
Between 7 and 8 hours,	-	-	2	-	-	3.85
8 hours,	1	-	3	1.92	-	5.77
Between 8 and 9 hours,	-	-	5	-	-	9.62
9 hours,	-	-	9	-	-	17.31
Between 9 and 10 hours,	2	1	1	3.85	1.92	1.92
10 hours,	21	47	11	40.38	90.39	21.15
More than 10 hours,	3	3	-	5.77	5.77	-
Not employed,	25	-	-	48.08	-	-
Not stated,	-	-	17	-	-	32.69
TOTALS,	52	52	52	100.00	100.00	100.00

CORKS, BUNGS, AND TAPS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	25.00
Between 8 and 9 hours,	1	1	1	25.00	25.00	25.00
9 hours,	-	-	1	-	-	25.00
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	2	3	-	50.00	75.00	-
More than 10 hours,	-	-	-	-	-	-
Not employed,	1	-	-	25.00	-	-
Not stated,	-	-	1	-	-	25.00
TOTALS,	4	4	4	100.00	100.00	100.00

COTTON GOODS.

Under 7 hours,	1	-	35	0.61	-	21.21
7 hours,	-	-	2	-	-	1.21
Between 7 and 8 hours,	-	-	47	-	-	28.49
8 hours,	-	-	7	-	-	4.24
Between 8 and 9 hours,	-	-	42	-	-	25.46
9 hours,	1	1	5	0.61	0.61	3.03
Between 9 and 10 hours,	-	-	2	-	-	1.21
10 hours,	139	134	10	84.24	81.21	6.06
More than 10 hours,	12	30	1	7.27	18.18	0.61
Not employed,	12	-	-	7.27	-	-
Not stated,	-	-	14	-	-	8.48
TOTALS,	165	165	165	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

COTTON, WOOLLEN, AND OTHER TEXTILES.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	25.00
8 hours,	-	-	2	-	-	50.00
Between 8 and 9 hours,	-	-	1	-	-	25.00
9 hours,	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	4	3	-	100.00	75.00	-
More than 10 hours,	-	1	-	-	25.00	-
Not employed,	-	-	-	-	-	-
Not stated,	-	-	-	-	-	-
TOTALS,	4	4	4	100.00	100.00	100.00

CRAYONS, PENCILS, CRUCIBLES, ETC.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	14.28
Between 8 and 9 hours,	-	-	2	-	-	28.58
9 hours,	-	1	1	-	14.28	14.28
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	4	6	2	57.14	85.72	28.58
More than 10 hours,	-	-	-	-	-	-
Not employed,	3	-	-	42.86	-	-
Not stated,	-	-	1	-	-	14.28
TOTALS,	7	7	7	100.00	100.00	100.00

DRUGS AND MEDICINES.

Under 7 hours,	3	-	1	0.33	-	0.11
7 hours,	-	-	3	-	-	0.33
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	8	5	3	0.87	0.54	0.33
Between 8 and 9 hours,	-	-	3	-	-	0.33
9 hours,	4	6	5	0.43	0.66	0.54
Between 9 and 10 hours,	1	-	1	0.11	-	0.11
10 hours,	38	155	34	4.15	16.92	3.71
More than 10 hours,	16	750	155	1.75	81.88	16.92
Not employed,	846	-	-	92.36	-	-
Not stated,	-	-	711	-	-	77.62
TOTALS,	916	916	916	100.00	100.00	100.00

DYESTUFFS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	1	-	-	11.11
9 hours,	1	-	2	11.11	-	22.22
Between 9 and 10 hours,	-	-	1	-	-	11.11
10 hours,	1	9	-	11.11	100.00	-
More than 10 hours,	-	-	-	-	-	-
Not employed,	7	-	-	77.78	-	-
Not stated,	-	-	5	-	-	55.56
TOTALS,	9	9	9	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

EARTHEN, PLASTER, AND STONE WARE.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	1	-	-	4.55
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	1	1	4.55	4.55	4.55
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	7	-	-	31.82
Between 9 and 10 hours,	-	-	1	-	-	4.55
10 hours,	7	21	5	31.82	95.45	22.71
More than 10 hours,	-	-	-	-	-	-
Not employed,	14	-	-	63.63	-	-
Not stated,	-	-	7	-	-	31.82
TOTALS,	22	22	22	100.00	100.00	100.00

ELECTRICAL APPARATUS AND APPLIANCES.

Under 7 hours,	-	1	1	-	2.50	2.50
7 hours,	-	1	-	-	2.50	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	-	-	2.50	-	-
Between 8 and 9 hours,	-	-	1	-	-	2.50
9 hours,	1	1	7	2.50	2.50	17.50
Between 9 and 10 hours,	1	1	1	2.50	2.50	2.50
10 hours,	10	28	10	25.00	70.00	25.00
More than 10 hours,	-	8	5	-	20.00	12.50
Not employed,	27	-	-	67.50	-	-
Not stated,	-	-	15	-	-	37.50
TOTALS,	40	40	40	100.00	100.00	100.00

ELECTROPLATING.

Under 7 hours,	-	-	1	-	-	2.86
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	1	1	2.86	2.86	2.86
Between 8 and 9 hours,	-	-	2	-	-	5.71
9 hours,	-	-	12	-	-	34.29
Between 9 and 10 hours,	-	1	3	-	2.86	8.57
10 hours,	12	33	6	34.29	94.28	17.14
More than 10 hours,	-	-	-	-	-	-
Not employed,	22	-	-	62.85	-	-
Not stated,	-	-	10	-	-	28.57
TOTALS,	35	35	35	100.00	100.00	100.00

EMERY AND SAND PAPER AND CLOTH, ETC.

Under 7 hours,	-	-	1	-	-	7.69
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	7.69
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	1	-	-	7.69
9 hours,	-	-	3	-	-	23.08
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	4	13	6	30.77	100.00	46.16
More than 10 hours,	-	-	-	-	-	-
Not employed,	9	-	-	69.23	-	-
Not stated,	-	-	1	-	-	7.69
TOTALS,	13	13	13	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

FANCY ARTICLES.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	1	1	5.56	5.56	5.56
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	1	1	2	5.56	5.56	11.11
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	8	14	3	44.44	77.77	16.66
More than 10 hours,	-	-	-	-	-	-
Not employed,	8	2	-	44.44	11.11	-
Not stated,	-	-	12	-	-	66.67
TOTALS,	18	18	18	100.00	100.00	100.00

FERTILIZERS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	2	-	-	11.76
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	2	17	6	11.76	100.00	35.30
More than 10 hours,	-	-	-	-	-	-
Not employed,	15	-	-	88.24	-	-
Not stated,	-	-	9	-	-	52.94
TOTALS,	17	17	17	100.00	100.00	100.00

FINE ARTS AND TAXIDERMISTRY.

Under 7 hours,	1	1	-	4.35	4.35	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	4.35
Between 8 and 9 hours,	1	-	-	4.35	-	-
9 hours,	2	1	2	8.69	4.35	8.69
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	1	18	-	4.35	78.26	-
More than 10 hours,	-	-	-	-	-	-
Not employed,	18	3	-	78.26	13.04	-
Not stated,	-	-	20	-	-	86.96
TOTALS,	23	23	23	100.00	100.00	100.00

FIREWORKS AND MATCHES.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	20.00
Between 8 and 9 hours,	-	-	1	-	-	20.00
9 hours,	-	-	-	-	-	-
Between 9 and 10 hours,	1	-	-	20.00	-	-
10 hours,	4	5	1	80.00	100.00	20.00
More than 10 hours,	-	-	-	-	-	-
Not employed,	-	-	-	-	-	-
Not stated,	-	-	2	-	-	40.00
TOTALS,	5	5	5	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

FLAX, HEMP, AND JUTE GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	1	-	-	11.11
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	11.11
Between 8 and 9 hours,	-	-	3	-	-	33.33
9 hours,	-	1	1	-	11.11	11.11
Between 9 and 10 hours,	1	1	-	11.11	11.11	-
10 hours,	2	3	-	22.22	33.33	-
More than 10 hours,	4	4	-	44.45	44.45	-
Not employed,	2	-	-	22.22	-	-
Not stated,	-	-	3	-	-	33.34
TOTALS,	9	9	9	100.00	100.00	100.00

FOOD PREPARATIONS.

Under 7 hours,	8	6	14	0.47	0.35	0.82
7 hours,	2	-	12	0.12	-	0.70
Between 7 and 8 hours,	2	-	1	0.12	-	0.06
8 hours,	21	45	27	1.23	2.63	1.58
Between 8 and 9 hours,	-	1	-	-	0.06	-
9 hours,	30	23	55	1.75	1.64	3.21
Between 9 and 10 hours,	3	2	1	0.18	0.12	0.06
10 hours,	299	1,415	377	17.47	82.70	22.03
More than 10 hours,	51	202	162	2.98	11.80	9.47
Not employed,	1,295	12	-	75.68	0.70	-
Not stated,	-	-	1,062	-	-	62.07
TOTALS,	1,711	1,711	1,711	100.00	100.00	100.00

FURNITURE.

Under 7 hours,	1	-	4	0.17	-	0.66
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	3	-	-	0.50
8 hours,	10	9	11	1.66	1.49	1.82
Between 8 and 9 hours,	1	-	7	0.17	-	1.16
9 hours,	15	9	114	2.49	1.49	18.91
Between 9 and 10 hours,	1	2	10	0.17	0.33	1.66
10 hours,	113	580	140	19.56	96.19	23.22
More than 10 hours,	-	3	2	-	0.50	0.33
Not employed,	457	-	-	75.78	-	-
Not stated,	-	-	312	-	-	51.74
TOTALS,	603	603	603	100.00	100.00	100.00

GAS AND RESIDUAL PRODUCTS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	1.52
8 hours,	-	1	1	-	1.52	1.52
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	1	-	-	1.52
Between 9 and 10 hours,	1	-	-	1.52	-	-
10 hours,	2	23	12	3.03	34.85	18.18
More than 10 hours,	1	42	36	1.52	63.63	54.54
Not employed,	62	-	-	93.93	-	-
Not stated,	-	-	15	-	-	22.72
TOTALS,	66	66	66	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

GLASS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	1	-	-	5.00
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	5.00
Between 8 and 9 hours,	1	-	-	-	-	-
9 hours,	1	1	7	5.00	5.00	35.00
Between 9 and 10 hours,	1	1	-	5.00	5.00	-
10 hours,	7	18	2	35.00	90.00	10.00
More than 10 hours,	-	-	-	-	-	-
Not employed,	11	-	-	55.00	-	-
Not stated,	-	-	9	-	-	45.00
TOTALS,	20	20	20	100.00	100.00	100.00

GLUE, ISINGLASS, AND STARCH.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	1	-	-	3.45
9 hours,	-	2	7	-	6.89	24.14
Between 9 and 10 hours,	1	1	5	3.45	3.45	17.24
10 hours,	7	26	13	24.14	89.66	44.83
More than 10 hours,	-	-	-	-	-	-
Not employed,	21	-	-	72.41	-	-
Not stated,	-	-	3	-	-	10.34
TOTALS,	29	29	29	100.00	100.00	100.00

HAIR WORK (ANIMAL AND HUMAN).

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	3	3	3	5.45	5.45	5.45
Between 8 and 9 hours,	1	-	-	1.82	-	-
9 hours,	17	1	7	30.91	1.82	12.73
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	20	22	6	36.36	40.00	10.91
More than 10 hours,	-	1	3	-	1.82	5.45
Not employed,	14	28	-	25.46	50.91	-
Not stated,	-	-	36	-	-	65.46
TOTALS,	55	55	55	100.00	100.00	100.00

HOSE: RUBBER, LINEN, ETC.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	2	-	-	66.67
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	3	3	1	100.00	100.00	33.33
More than 10 hours,	-	-	-	-	-	-
Not employed,	-	-	-	-	-	-
Not stated,	-	-	-	-	-	-
TOTALS,	3	3	3	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

HOSIERY AND KNIT GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	2	—	6	3.33	—	10.00
7 hours,	1	—	—	1.67	—	—
Between 7 and 8 hours,	—	—	3	—	—	5.00
8 hours,	2	—	5	3.33	—	8.33
Between 8 and 9 hours,	—	—	6	—	—	10.00
9 hours,	4	3	9	6.67	5.00	15.00
Between 9 and 10 hours,	—	—	4	—	—	6.67
10 hours,	36	52	9	60.00	86.67	15.00
More than 10 hours,	3	3	—	5.00	5.00	—
Not employed,	12	2	—	20.00	3.33	—
Not stated,	—	—	18	—	—	30.00
TOTALS,	60	60	60	100.00	100.00	100.00

INK, MUCILAGE, AND PASTE.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	2	1	3	10.00	5.00	15.00
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	—	—	3	—	—	15.00
Between 9 and 10 hours,	—	—	—	—	—	—
10 hours,	6	19	2	30.00	95.00	10.00
More than 10 hours,	—	—	—	—	—	—
Not employed,	12	—	—	60.00	—	—
Not stated,	—	—	12	—	—	60.00
TOTALS,	20	20	20	100.00	100.00	100.00

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	1	—	—	2.56
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	2	—	1	5.13	—	2.56
Between 8 and 9 hours,	—	—	1	—	—	2.56
9 hours,	1	1	6	2.56	2.56	15.39
Between 9 and 10 hours,	—	—	—	—	—	—
10 hours,	24	38	21	61.54	97.41	53.85
More than 10 hours,	—	—	—	—	—	—
Not employed,	12	—	—	30.77	—	—
Not stated,	—	—	9	—	—	23.08
TOTALS,	39	39	39	100.00	100.00	100.00

JEWELRY BURNISHING AND LAPIDARY WORK.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	—	—	—	—	—	—
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	1	1	4	14.29	14.29	57.14
Between 9 and 10 hours,	—	1	—	—	14.29	—
10 hours,	—	5	—	—	71.42	—
More than 10 hours,	—	—	—	—	—	—
Not employed,	6	—	—	85.71	—	—
Not stated,	—	—	3	—	—	42.86
TOTALS,	7	7	7	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

LEATHER.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	1	2	2	0.14	0.29	0.29
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	2	8	0.14	0.29	1.14
Between 8 and 9 hours,	-	1	3	-	0.14	0.43
9 hours,	2	2	202	0.29	0.29	28.90
Between 9 and 10 hours,	2	2	5	0.29	0.29	0.71
10 hours,	92	680	183	13.16	97.28	26.18
More than 10 hours,	2	10	6	0.29	1.42	0.86
Not employed,	599	-	-	85.69	-	-
Not stated,	-	-	290	-	-	41.49
TOTALS,	699	699	699	100.00	100.00	100.00

LINEN.

Under 7 hours,	-	-	1	-	-	33.33
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	33.33
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	3	3	-	100.00	100.00	-
More than 10 hours,	-	-	-	-	-	-
Not employed,	-	-	-	-	-	-
Not stated,	-	-	1	-	-	33.34
TOTALS,	3	3	3	100.00	100.00	100.00

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

Under 7 hours,	-	1	-	-	1.59	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	2	-	-	3.17	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	2	1	-	3.17	1.59
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	10	58	21	15.88	92.07	33.33
More than 10 hours,	-	2	7	-	3.17	11.11
Not employed,	51	-	-	80.95	-	-
Not stated,	-	-	34	-	-	53.97
TOTALS,	63	63	63	100.00	100.00	100.00

LIQUORS: MALT, DISTILLED, AND FERMENTED.

Under 7 hours,	1	1	2	0.46	0.46	0.92
7 hours,	1	-	-	0.46	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	1	4	-	0.46	1.83
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	3	7	-	1.38	3.21
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	12	192	59	5.50	88.07	27.06
More than 10 hours,	-	21	18	-	9.63	8.26
Not employed,	204	-	-	93.58	-	-
Not stated,	-	-	128	-	-	58.72
TOTALS,	218	218	218	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc.—Continued.

LUMBER.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	3	-	-	0.64
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	1	4	4	0.21	0.86	0.86
Between 8 and 9 hours,	-	2	3	-	0.43	0.64
9 hours,	1	3	16	0.21	0.64	3.44
Between 9 and 10 hours,	-	-	5	-	-	1.07
10 hours,	22	449	178	4.73	96.35	38.20
More than 10 hours,	-	8	3	-	1.72	0.64
Not employed,	442	-	-	94.85	-	-
Not stated,	-	-	254	-	-	54.51
TOTALS,	466	466	466	100.00	100.00	100.00

MACHINES AND MACHINERY.

Under 7 hours,	-	-	8	-	-	1.29
7 hours,	-	-	3	-	-	0.48
Between 7 and 8 hours,	-	-	8	-	-	1.29
8 hours,	3	5	21	0.48	0.80	3.38
Between 8 and 9 hours,	-	1	46	-	0.16	7.39
9 hours,	3	9	160	0.48	1.45	25.72
Between 9 and 10 hours,	1	2	18	0.16	0.32	2.89
10 hours,	163	592	182	26.21	95.18	29.26
More than 10 hours,	5	13	-	0.80	2.09	-
Not employed,	447	-	-	71.87	-	-
Not stated,	-	-	176	-	-	28.30
TOTALS,	622	622	622	100.00	100.00	100.00

METALS AND METALLIC GOODS.

Under 7 hours,	-	-	10	-	-	0.37
7 hours,	-	1	10	-	0.04	0.37
Between 7 and 8 hours,	-	-	4	-	-	0.15
8 hours,	12	28	51	0.44	1.02	1.87
Between 8 and 9 hours,	3	2	16	0.11	0.07	0.58
9 hours,	20	48	361	0.73	1.76	13.21
Between 9 and 10 hours,	5	9	22	0.18	0.33	0.80
10 hours,	381	2,582	681	13.95	94.51	24.93
More than 10 hours,	9	62	58	0.33	2.27	2.12
Not employed,	2,302	-	-	84.26	-	-
Not stated,	-	-	1,519	-	-	55.60
TOTALS,	2,732	2,732	2,732	100.00	100.00	100.00

MIXED TEXTILES.

Under 7 hours,	-	-	1	-	-	7.70
7 hours,	-	-	1	-	-	7.70
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	2	-	-	15.38
Between 8 and 9 hours,	-	-	2	-	-	15.38
9 hours,	1	1	2	7.70	7.70	15.38
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	8	10	3	61.52	76.92	23.08
More than 10 hours,	1	2	-	7.70	15.38	-
Not employed,	3	-	-	23.08	-	-
Not stated,	-	-	2	-	-	15.38
TOTALS,	13	13	13	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

MODELS AND PATTERNS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	2	1	1	3.92	1.96	1.96
Between 8 and 9 hours,	-	-	1	-	-	1.96
9 hours,	2	3	19	3.92	5.88	37.26
Between 9 and 10 hours,	-	-	3	-	-	5.88
10 hours,	5	47	14	9.81	92.16	27.45
More than 10 hours,	-	-	-	-	-	-
Not employed,	42	-	-	82.35	-	-
Not stated,	-	-	13	-	-	25.49
TOTALS,	51	51	51	100.00	100.00	100.00

MUSICAL INSTRUMENTS AND MATERIALS.

Under 7 hours,	-	-	1	-	-	1.08
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	1.08
8 hours,	3	2	6	3.23	2.15	6.45
Between 8 and 9 hours,	-	-	2	-	-	2.15
9 hours,	-	4	24	-	4.30	25.80
Between 9 and 10 hours,	2	2	4	2.15	2.15	4.30
10 hours,	31	85	25	33.33	91.40	26.88
More than 10 hours,	-	-	-	-	-	-
Not employed,	57	-	-	61.29	-	-
Not stated,	-	-	30	-	-	32.26
TOTALS,	93	93	93	100.00	100.00	100.00

OILS AND ILLUMINATING FLUIDS.

Under 7 hours,	-	-	1	-	-	3.57
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	3.57
Between 8 and 9 hours,	-	1	-	-	3.57	-
9 hours,	-	-	3	-	-	10.71
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	6	27	10	21.43	96.43	35.72
More than 10 hours,	-	-	-	-	-	-
Not employed,	22	-	-	78.57	-	-
Not stated,	-	-	13	-	-	46.43
TOTALS,	28	28	28	100.00	100.00	100.00

PAINTS, COLORS, AND CRUDE CHEMICALS.

Under 7 hours,	-	1	-	-	4.55	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	4.55
Between 8 and 9 hours,	-	-	1	-	-	4.55
9 hours,	-	-	2	-	-	9.09
Between 9 and 10 hours,	-	1	-	-	4.55	-
10 hours,	3	18	8	13.64	81.81	36.36
More than 10 hours,	1	2	1	4.55	9.09	4.55
Not employed,	18	-	-	81.81	-	-
Not stated,	-	-	9	-	-	40.90
TOTALS,	22	22	22	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

PAPER AND PAPER GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	1	-	2	0.68	-	1.35
7 hours,	-	1	1	-	0.68	0.68
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	8	-	11	5.41	-	7.43
Between 8 and 9 hours,	3	-	6	2.03	-	4.05
9 hours,	13	5	23	8.78	3.38	15.54
Between 9 and 10 hours,	4	2	8	2.70	1.35	5.41
10 hours,	89	109	45	60.13	73.65	30.41
More than 10 hours,	-	31	18	-	20.94	12.16
Not employed,	30	-	-	20.27	-	-
Not stated,	-	-	34	-	-	22.97
TOTALS,	148	148	148	100.00	100.00	100.00

PERFUMES, TOILET ARTICLES, ETC.

Under 7 hours,	1	-	1	10.00	-	10.00
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	1	1	-	10.00	10.00
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	2	4	2	20.00	40.00	20.00
Between 9 and 10 hours,	2	2	1	20.00	20.00	10.00
10 hours,	3	2	-	30.00	20.00	-
More than 10 hours,	-	-	1	-	-	10.00
Not employed,	2	1	-	20.00	10.00	-
Not stated,	-	-	4	-	-	40.00
TOTALS,	10	10	10	100.00	100.00	100.00

PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

Under 7 hours,	2	3	3	0.83	1.25	1.25
7 hours,	3	1	2	1.25	0.41	0.83
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	16	29	12	6.64	12.03	4.98
Between 8 and 9 hours,	1	-	1	0.41	-	0.41
9 hours,	33	39	22	13.69	16.18	9.13
Between 9 and 10 hours,	-	-	1	-	-	0.41
10 hours,	47	165	35	19.50	68.47	11.53
More than 10 hours,	-	4	1	-	1.66	0.41
Not employed,	139	-	-	57.63	-	-
Not stated,	-	-	164	-	-	68.05
TOTALS,	241	241	241	100.00	100.00	100.00

POLISHES AND DRESSING.

Under 7 hours,	-	-	5	-	-	7.69
7 hours,	-	-	1	-	-	1.54
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	3	2	3	4.62	3.08	4.62
Between 8 and 9 hours,	-	-	1	-	-	1.54
9 hours,	2	4	5	3.08	6.15	7.69
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	10	59	10	15.38	90.77	15.38
More than 10 hours,	-	-	-	-	-	-
Not employed,	50	-	-	76.92	-	-
Not stated,	-	-	40	-	-	61.54
TOTALS,	65	65	65	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc.—Continued.

PRINTING, PUBLISHING, AND BOOKBINDING.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	2	3	22	0.28	0.42	3.09
7 hours,	2	1	14	0.28	0.14	1.97
Between 7 and 8 hours,	1	—	6	0.14	—	0.84
8 hours,	34	35	57	4.78	4.92	8.00
Between 8 and 9 hours,	4	2	21	0.56	0.28	2.95
9 hours,	99	90	199	13.90	12.64	27.95
Between 9 and 10 hours,	23	25	19	3.23	3.93	2.67
10 hours,	277	547	152	38.91	76.83	21.35
More than 10 hours,	—	6	6	—	0.84	0.84
Not employed,	270	—	—	37.92	—	—
Not stated,	—	—	216	—	—	30.34
TOTALS,	712	712	712	100.00	100.00	100.00

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

Under 7 hours,	—	—	1	—	—	1.04
7 hours,	—	—	1	—	—	1.04
Between 7 and 8 hours,	—	—	3	—	—	3.13
8 hours,	3	—	5	3.13	—	5.21
Between 8 and 9 hours,	—	—	12	—	—	12.50
9 hours,	3	1	5	3.13	1.04	5.21
Between 9 and 10 hours,	1	1	1	1.04	1.04	1.04
10 hours,	49	91	29	51.04	94.79	30.21
More than 10 hours,	2	3	—	2.08	3.13	—
Not employed,	38	—	—	39.58	—	—
Not stated,	—	—	39	—	—	40.62
TOTALS,	96	96	96	100.00	100.00	100.00

RAILROAD CONSTRUCTION.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	—	—	—	—	—	—
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	—	1	8	—	6.67	53.33
Between 9 and 10 hours,	—	—	—	—	—	—
10 hours,	6	14	7	40.00	93.33	46.67
More than 10 hours,	—	—	—	—	—	—
Not employed,	9	—	—	60.00	—	—
Not stated,	—	—	—	—	—	—
TOTALS,	15	15	15	100.00	100.00	100.00

RUBBER AND ELASTIC GOODS.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	—	—	2	—	—	4.88
Between 8 and 9 hours,	—	—	11	—	—	26.83
9 hours,	2	1	7	4.88	2.44	17.07
Between 9 and 10 hours,	—	—	1	—	—	2.44
10 hours,	29	39	11	70.73	95.12	26.83
More than 10 hours,	1	1	—	2.44	2.44	—
Not employed,	9	—	—	21.95	—	—
Not stated,	—	—	9	—	—	21.95
TOTALS,	41	41	41	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc.—Continued.

SALT.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	1	5	1	20.00	100.00	20.00
More than 10 hours,	-	-	-	-	-	-
Not employed,	4	-	-	80.00	-	-
Not stated,	-	-	4	-	-	80.00
TOTALS,	5	5	5	100.00	100.00	100.00

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

Under 7 hours,	1	1	2	1.54	1.54	3.08
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	1	-	-	1.54	-	-
8 hours,	-	2	3	-	3.08	4.62
Between 8 and 9 hours,	1	-	1	1.54	-	1.54
9 hours,	4	2	10	6.15	3.08	15.38
Between 9 and 10 hours,	-	1	-	-	1.54	-
10 hours,	22	59	17	33.85	90.76	26.15
More than 10 hours,	-	-	1	-	-	1.54
Not employed,	36	-	-	55.38	-	-
Not stated,	-	-	31	-	-	47.69
TOTALS,	65	65	65	100.00	100.00	100.00

SHIPBUILDING.

Under 7 hours,	-	-	1	-	-	0.36
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	0.36
8 hours,	1	17	12	0.36	6.09	4.30
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	2	6	21	0.72	2.15	7.53
Between 9 and 10 hours,	1	1	-	0.36	0.36	-
10 hours,	16	255	104	5.73	91.40	37.27
More than 10 hours,	-	-	-	-	-	-
Not employed,	259	-	-	92.83	-	-
Not stated,	-	-	140	-	-	50.18
TOTALS,	279	279	279	100.00	100.00	100.00

SILK AND SILK GOODS.

Under 7 hours,	-	-	1	-	-	8.33
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	3	-	-	25.00
8 hours,	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	3	-	-	25.00
9 hours,	-	1	1	-	8.33	8.33
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	9	9	2	75.00	75.00	16.67
More than 10 hours,	2	2	-	16.67	16.67	-
Not employed,	1	-	-	8.33	-	-
Not stated,	-	-	2	-	-	16.67
TOTALS,	12	12	12	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

SPORTING AND ATHLETIC GOODS.

CLASSIFICATION OF DAILY WORKING TIME:	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	3.70
Between 8 and 9 hours,	-	-	2	-	-	7.41
9 hours,	2	1	6	7.41	3.70	22.22
Between 9 and 10 hours,	-	-	1	-	-	3.70
10 hours,	8	25	4	29.63	92.60	14.82
More than 10 hours,	1	1	-	3.70	3.70	-
Not employed,	16	-	-	59.26	-	-
Not stated,	-	-	13	-	-	48.15
TOTALS,	27	27	27	100.00	100.00	100.00

STONE.

Under 7 hours,	-	-	2	-	-	0.53
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	1	-	-	0.26
8 hours,	-	2	5	-	0.53	1.32
Between 8 and 9 hours,	1	-	-	0.26	-	-
9 hours,	3	12	151	0.79	3.18	39.95
Between 9 and 10 hours,	-	1	-	-	0.26	-
10 hours,	33	362	109	8.73	95.77	28.84
More than 10 hours,	-	1	1	-	0.26	0.26
Not employed,	341	-	-	90.22	-	-
Not stated,	-	-	109	-	-	28.84
TOTALS,	378	378	378	100.00	100.00	100.00

STRAW AND PALM LEAF GOODS.

Under 7 hours,	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	-	-	1	-	-	2.13
Between 8 and 9 hours,	1	-	-	2.13	-	-
9 hours,	3	1	6	6.38	2.13	12.77
Between 9 and 10 hours,	-	-	1	-	-	2.13
10 hours,	36	37	20	76.60	78.72	42.55
More than 10 hours,	-	-	-	-	-	-
Not employed,	7	9	-	14.89	19.15	-
Not stated,	-	-	19	-	-	40.42
TOTALS,	47	47	47	100.00	100.00	100.00

TALLOW, CANDLES, SOAP, AND GREASE.

Under 7 hours,	-	1	1	-	0.65	0.65
7 hours,	-	1	2	-	0.65	1.29
Between 7 and 8 hours,	-	-	-	-	-	-
8 hours,	3	7	7	1.94	4.51	4.51
Between 8 and 9 hours,	-	-	-	-	-	-
9 hours,	4	5	10	2.58	3.22	6.45
Between 9 and 10 hours,	-	-	3	-	-	1.94
10 hours,	19	141	57	12.26	90.97	36.77
More than 10 hours,	-	-	1	-	-	0.65
Not employed,	129	-	-	83.22	-	-
Not stated,	-	-	74	-	-	47.74
TOTALS,	155	155	155	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc. — Continued.

TOBACCO, SNUFF, AND CIGARS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	1	2	21	0.33	0.66	6.95
7 hours,	—	—	14	—	—	4.64
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	20	36	67	6.62	11.92	22.19
Between 8 and 9 hours,	—	—	2	—	—	0.66
9 hours,	33	43	20	10.93	14.24	6.62
Between 9 and 10 hours,	2	2	—	0.66	0.66	—
10 hours,	72	217	24	23.81	71.86	7.95
More than 10 hours,	—	2	2	—	0.66	0.66
Not employed,	174	—	—	57.62	—	—
Not stated,	—	—	152	—	—	50.33
TOTALS,	302	302	302	100.00	100.00	100.00

TOYS AND GAMES (CHILDREN'S).

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	—	—	—	—	—	—
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	1	—	—	6.66	—	—
Between 9 and 10 hours,	—	—	1	—	—	6.66
10 hours,	9	15	7	60.00	100.00	46.67
More than 10 hours,	—	—	—	—	—	—
Not employed,	5	—	—	33.34	—	—
Not stated,	—	—	7	—	—	46.67
TOTALS,	15	15	15	100.00	100.00	100.00

TRUNKS AND VALISES.

Under 7 hours,	—	—	—	—	—	—
7 hours,	—	—	1	—	—	4.00
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	2	2	2	8.00	8.00	8.00
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	—	1	5	—	4.00	20.00
Between 9 and 10 hours,	—	—	—	—	—	—
10 hours,	4	22	5	16.00	88.00	20.00
More than 10 hours,	—	—	—	—	—	—
Not employed,	19	—	—	76.00	—	—
Not stated,	—	—	12	—	—	48.00
TOTALS,	25	25	25	100.00	100.00	100.00

WHIPS, LASHES, AND STOCKS.

Under 7 hours,	—	—	1	—	—	1.67
7 hours,	—	—	1	—	—	1.67
Between 7 and 8 hours,	—	—	—	—	—	—
8 hours,	1	2	1	1.67	3.33	1.67
Between 8 and 9 hours,	—	—	—	—	—	—
9 hours,	—	—	18	—	—	30.00
Between 9 and 10 hours,	—	—	1	—	—	1.67
10 hours,	34	58	10	56.66	96.67	16.66
More than 10 hours,	—	—	—	—	—	—
Not employed,	25	—	—	41.67	—	—
Not stated,	—	—	28	—	—	46.66
TOTALS,	60	60	60	100.00	100.00	100.00

Daily Working Time for Women and Minors, etc.—Concluded.

WOODEN GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER			PERCENTAGES		
	Women and Minors	Male Adults	All Persons on Saturday	Women and Minors	Male Adults	All Persons on Saturday
Under 7 hours,	-	3	6	-	0.56	1.12
7 hours,	3	1	1	0.56	0.19	0.19
Between 7 and 8 hours,	-	-	1	-	-	0.19
8 hours,	3	9	15	0.56	1.69	2.81
Between 8 and 9 hours,	-	-	5	-	-	0.94
9 hours,	8	15	57	1.50	2.81	10.67
Between 9 and 10 hours,	1	2	8	0.19	0.37	1.50
10 hours,	77	495	39	14.42	92.69	26.03
More than 10 hours,	1	9	6	0.19	1.69	1.12
Not employed,	441	-	-	82.58	-	-
Not stated,	-	-	296	-	-	55.43
TOTALS,	514	534	534	100.00	100.00	100.00

WOOLLEN GOODS.

Under 7 hours,	-	-	11	-	-	5.82
7 hours,	-	-	4	-	-	2.12
Between 7 and 8 hours,	-	-	18	-	-	9.52
8 hours,	-	-	13	-	-	6.88
Between 8 and 9 hours,	-	-	60	-	-	31.75
9 hours,	1	-	16	0.53	-	8.46
Between 9 and 10 hours,	-	-	23	-	-	12.17
10 hours,	149	107	13	78.83	56.61	6.88
More than 10 hours,	13	82	1	6.88	43.39	0.53
Not employed,	26	-	-	13.76	-	-
Not stated,	-	-	30	-	-	15.87
TOTALS,	189	189	189	100.00	100.00	100.00

WORSTED GOODS.

Under 7 hours,	-	-	5	-	-	21.74
7 hours,	-	-	1	-	-	4.35
Between 7 and 8 hours,	-	-	3	-	-	13.05
8 hours,	-	-	1	-	-	4.35
Between 8 and 9 hours,	-	-	6	-	-	26.08
9 hours,	-	-	1	-	-	4.35
Between 9 and 10 hours,	-	-	-	-	-	-
10 hours,	20	18	-	86.96	78.26	-
More than 10 hours,	2	5	-	8.69	21.74	-
Not employed,	1	-	-	4.35	-	-
Not stated,	-	-	6	-	-	26.08
TOTALS,	23	23	23	100.00	100.00	100.00

ALL INDUSTRIES.

Under 7 hours,	32	45	253	0.14	0.19	1.08
7 hours,	22	17	113	0.09	0.07	0.48
Between 7 and 8 hours,	4	1	117	0.02	0.01	0.50
8 hours,	305	697	646	1.30	2.98	2.76
Between 8 and 9 hours,	30	24	362	0.13	0.10	1.54
9 hours,	765	552	3,129	3.26	2.36	13.35
Between 9 and 10 hours,	113	96	230	0.48	0.41	0.98
10 hours,	5,299	19,228	5,421	22.62	82.06	23.14
More than 10 hours,	187	1,444	663	0.80	6.16	2.83
Not employed,	16,674	1,327	-	71.16	5.66	-
Not stated,	-	-	12,497	-	-	53.34
TOTALS,	23,431	23,431	23,431	100.00	100.00	100.00

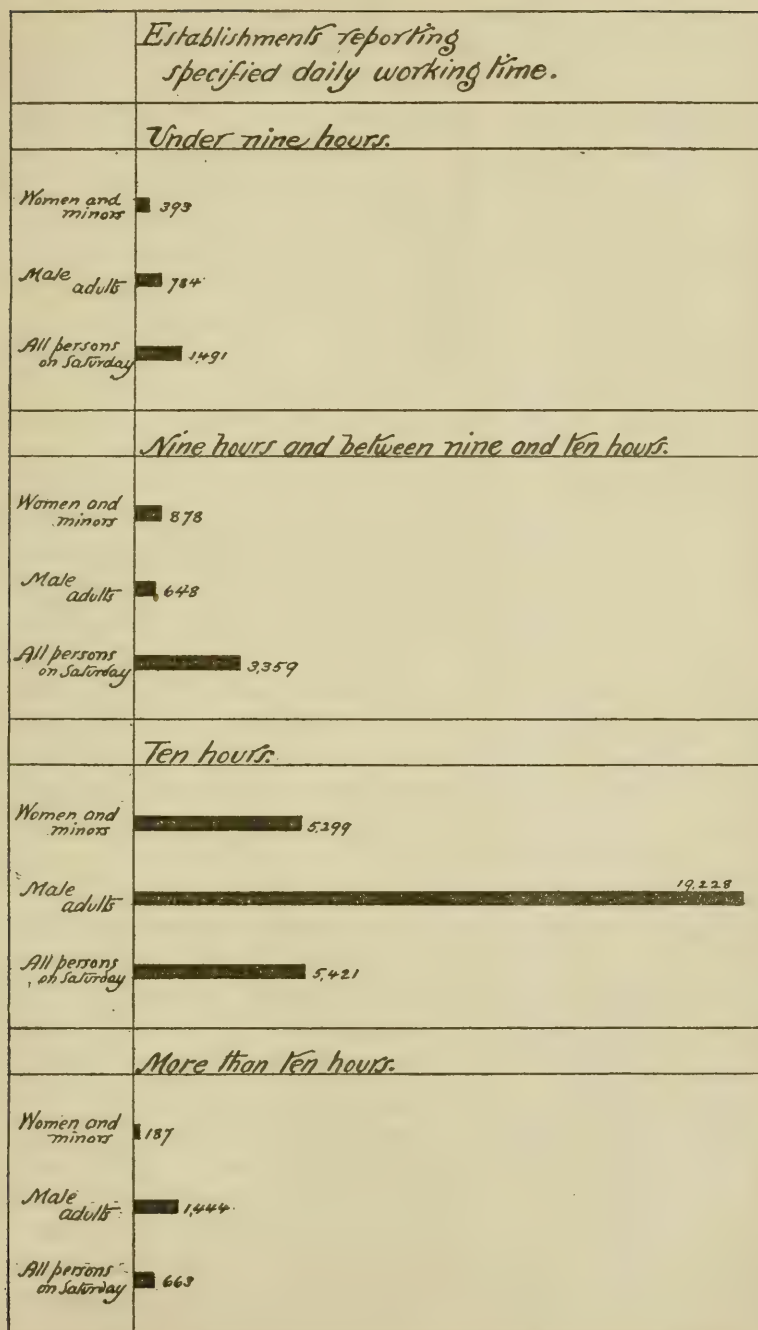
ANALYSIS.

We begin our analysis by reference to the presentation for All Industries. We notice that 23,431 establishments are included in the table. In 16,674, or 71.16 per cent of these, women and minors are not employed, and in 1,327, or 5.66 per cent, male adults are not employed. Of the establishments employing women and minors 5,299, or 22.62 per cent of all the establishments, report 10 hours as the daily working time for such operatives. Of the establishments employing male adults 19,228, or 82.06 per cent of all the establishments, also report 10 hours as the daily working time for this class. It plainly appears, therefore, that for the larger number of establishments in the Commonwealth 10 hours is, at present, the length of the working day. The daily working time is under seven hours for women and minors in 32 establishments, and for male adults in 45 establishments, these being, respectively, 0.14 per cent and 0.19 per cent of all the establishments. Seven hours daily is the limit for women and minors in 22 establishments, and for male adults in 17 establishments, these being, respectively, 0.09 per cent and 0.07 per cent of all the establishments. The number working between seven and eight hours daily is very limited, only four establishments making this return as to women and minors, and only one as to male adults. We find 305 establishments working upon the eight hour plan as to women and minors, and 697 following the same rule as to male adults, these being, respectively, 1.30 per cent and 2.98 per cent of the total number of establishments. Women and minors in 30 establishments and male adults in 24 establishments are working between eight and nine hours daily. Nine hours constitutes a day's work for women and minors in 765 establishments, and for male adults in 552 establishments, the percentages in each case being, respectively, 3.26 and 2.36 of the total number of establishments. Establishments in which the daily working time for women and minors is between nine and ten hours number 113, and in 96 the same condition prevails as to male adults. Women and minors are employed in 187 establishments, which report that such employes work more than 10 hours daily, and 1,444 establishments make the same return as to male adults.

In 5,421 establishments, or 23.14 per cent of the total number, 10 hours is the length of a day's work on Saturday. There are 253 establishments that report less than seven hours; 113, seven hours; 117, between seven and eight hours; 646, eight hours; 362, between eight and nine hours; 3,129, nine hours; 230, between nine and ten hours; and 663, more than 10 hours, as the working time on Saturday. There are 12,497, or 53.34 per cent of the total number of establishments which do not return their working time for Saturday independently of their working time for other days. The majority of these probably run 10 hours on Saturday, as well as on other days, and for that reason failed to make an independent return of the running time for Saturday.

The facts contained in the table relating to All Industries are presented in the diagram upon page 473. Precisely the same facts in detail for every industry may be obtained from the tables. We select a few industries for analytical treatment.

In Boots and Shoes, presented upon page 451, 2,366 establishments appear. In 822, or 34.74 per cent of these, 10 hours is the length of the working day for women and minors, while, in 2,257, or 95.39 per cent of the total number, the same time is observed for male adults. In 1,446 establishments neither women nor minors are employed, and in eight establishments no male adults are employed. Three establishments report a working day more than 10 hours in length for women and minors, and 31 make the same return as to male adults. On the other hand, in 95 establishments less than 10 hours constitutes a working day for women and minors, and in 70 establishments the same condition prevails as to male adults. Of the establishments returning less than 10 hours as the length of the working day the larger number run on the nine hour basis, 48 establishments, out of the grand total, making such a return as to women and minors, and 32, as to male adults. In 631 establishments, or 26.67 per cent of the total number, nine hours limits the working day for all persons on Saturday. There are 54 establishments, or 2.28 per cent of the total number, that run eight hours on Saturday for all persons, and 38 establishments have established eight hours as the daily working time for women and minors, while 30 follow the same rule as to male adults.



Referring to the clothing industry, upon page 454, we find that returns from 2,402 establishments are presented. Of these, 444 do not employ either women or minors, and 1,251 establishments do not employ male adults. These establishments constitute, respectively, 18.49 per cent and 52.08 per cent of the total number. In 1,410 establishments, 58.70 per cent of the total number, 10 hours is the length of the working day for women and minors, and in 984 establishments, 40.97 per cent of the total number, the same condition applies as to male adults. There are 370 establishments, or 15.40 per cent of the total number, that work on the nine hour plan as to women and minors, and 72 establishments, or three per cent of the total number, consider eight hours the daily working time for this class of operatives. In 88 establishments, or 3.67 per cent of the total number, and in 19 establishments, or 0.79 per cent of the total number, nine and eight hours, respectively, constitutes the length of the working day for male adults. In 188 establishments, or 7.83 per cent of the total number, and in 74 establishments, or 3.08 per cent of the total number, nine and eight hours, respectively, is the working time on Saturday for all persons. Out of the grand total, 506 establishments run less than 10 hours daily for women and minors, and 136 establishments less than 10 hours daily for male adults. The establishments that run more than 10 hours for women and minors number 42, and 31 establishments run more than 10 hours daily for male adults.

Upon page 455 the cotton goods industry is presented, comprising 165 establishments. The length of the working day for women and minors is fixed at 10 hours in 139 establishments, and for male adults in 134 establishments. One establishment runs nine hours daily for both classes. One establishment reports its working time as less than seven hours daily for women and minors. In 12 establishments neither women nor minors are employed. The length of a working day is more than 10 hours, as to women and minors, in 12 establishments, and as to male adults in 30 establishments, constituting, respectively, 7.27 per cent and 18.18 per cent of the total number. Of all the establishments 25.46 per cent run between eight and nine hours for all persons on Saturday, 28.49 per cent between seven and eight hours, and 21.21 per cent run less than seven hours.

In Food Preparations, upon page 459, we find 1,711 establishments. Of these, 1,295 employ neither women nor minors, and 12 do not employ male adults. Ten hours rules as the working day for women and minors in 299 establishments, and for male adults in 1,415 establishments, constituting, respectively, 17.47 per cent and 82.70 per cent of the total number. The eight hour plan has been adopted, as to women and minors, in 21 establishments, and as to male adults in 45 establishments; and the nine hour plan, as to women and minors, in 30 establishments, and as to male adults in 28 establishments. There are 202 establishments, or 11.80 per cent of the total number, that run more than 10 hours daily for male adults, and 51 establishments, or 2.98 per cent of the total number, make the same return as to women and minors.

The furniture industry comprises 603 establishments presented on page 459. In 580 of these, or 96.19 per cent of the total number, 10 hours prevails as the working day for male adults, and in 118, or 19.56 per cent of the total number, the same condition applies as to women and minors. In 457 establishments, or 75.78 per cent of the total number, women or minors are not employed. Eight hours constitutes a working day for women and minors in 10 establishments, and for male adults in nine establishments, and nine hours prevails as to women and minors in 15 establishments, and as to male adults in nine establishments. Three establishments run more than 10 hours daily for male adults.

In Leather, presented upon page 462, 699 establishments are included, and in 680 of them, or 97.28 per cent of the total number, 10 hours is the length of the working day for male adults. Only a few women or minors are employed in this industry. In 92 establishments, or 13.16 per cent of the total number, 10 hours is the length of the working day for such operatives. Two establishments report more than 10 hours as the working day for women and minors, and 10 establishments make the same return as to male adults.

In Machines and Machinery, page 463, 622 establishments make returns. In 447 of these, or 71.87 per cent of the total number, neither women nor minors are employed. In 163 establishments 10 hours is the length of the working day for women and minors, and 592 establishments make the same

return as to male adults. These establishments constitute, respectively, 26.21 per cent and 95.18 per cent of the total number. There are 13 establishments that run more than 10 hours daily for male adults, and five report the same condition as to women and minors. Only 17 establishments, out of the total number, run less than 10 hours daily for male adults, and only seven establishments run less than 10 hours for women and minors.

In Metals and Metallic Goods, page 463, 2,732 establishments are found. Of these, 2,302 establishments employ neither women nor minors, and 381 establishments, or 13.95 per cent of the total number, employ women and minors for 10 hours daily. In 2,582 establishments, or 94.51 per cent of the total number, male adults are employed for 10 hours daily. In 681 establishments, or 24.93 per cent of the total number, all persons are employed for 10 hours on Saturday. The eight hour system is in force in 12 establishments, as to women and minors, and in 28 as to male adults, while 51 establishments, out of the total number, run but eight hours on Saturday, 24 run less than eight hours on Saturday, and 361 run nine hours on Saturday. There are 20 establishments that run nine hours daily for women and minors, and 48 make the same return as to male adults.

In Paper and Paper Goods, page 465, 148 establishments appear. The ten hour system prevails, as to women and minors, in 89, and as to male adults in 109 of these establishments, constituting, respectively, 60.13 per cent and 73.65 per cent of the total number. The establishments that report a working day for male adults longer than 10 hours number 31. In 13 establishments the working day for women and minors is nine hours in length, and five establishments have the same condition as to male adults. Eight establishments run eight hours daily for women and minors. In 30 establishments neither women nor minors are employed.

The number of establishments classified under the head of Printing, Publishing, and Bookbinding is 712, presented upon page 466. Of these, 270 establishments employ neither women nor minors. Six establishments run more than 10 hours daily for male adults. The ten hour system prevails, as to women and minors, in 277 establishments and as to male

adults in 547 establishments. These constitute, respectively, 38.91 per cent and 76.83 per cent of the total number. There are 165 establishments that report a working day shorter than 10 hours for women and minors, and 159 make the same return as to male adults. Of these, the eight hour plan prevails, as to women and minors, in 34 establishments, and in 35 establishments as to male adults. The nine hour plan is followed in 99 establishments, as to women and minors, and in 90 establishments as to male adults.

The number of establishments classified as Print Works, Dye Works, and Bleacheries is 96, presented upon page 466. Of these, 38, or 39.58 per cent of the total number, do not employ either women or minors. The number reporting 10 hours as the length of a day's work for women and minors is 49, and the number reporting the same condition for male adults is 91. Seven establishments run less than 10 hours for women and minors, and two establishments less than 10 hours for male adults. On the other hand, two establishments run more than 10 hours for women and minors, and three establishments more than 10 hours for male adults.

The conditions prevailing in the rubber and elastic goods industry are shown upon page 466, 41 establishments making return. The ten hour plan prevails, as to male adults, in 39 of these, or 95.12 per cent of the total number, and as to women and minors in 29, or 70.73 per cent of the total number. One establishment runs more than 10 hours for women and minors, and one establishment more than 10 hours for male adults, while two establishments are running on the nine hour plan for women and minors, and one establishment on the same plan for male adults. The establishments in which nine hours prevails for women and minors constitute 4.88 per cent of the total number, and those running nine hours for male adults constitute 2.44 per cent of the total number. In 26.83 per cent of the establishments, between eight and nine hours on Saturday is the rule for all persons, and 17.07 per cent run nine hours on that day for all persons.

In the woollen goods industry, presented on page 470, 189 establishments appear. Only one of these runs less than 10 hours daily, and in this the condition applies only to women and minors. Ten hours per day is the working time for

women and minors in 149 establishments, constituting 78.83 per cent of the total number, and for male adults in 107 establishments, constituting 56.61 per cent of the total number. There are 82 establishments that report a working day longer than 10 hours for male adults, this number constituting 43.39 per cent of the total number, and 13 establishments, or 6.88 per cent of the total number, make the same return as to women and minors. Of the total number of establishments, 31.75 per cent run between eight and nine hours on Saturday. Working time less than eight hours on Saturday prevails in 33 establishments, while 13 establishments run eight hours only on Saturday. In 16 establishments, or 8.46 per cent of the total number, nine hours is the limit on Saturday, and 23 establishments run between nine and ten hours on that day.

In the worsted goods industry, presented upon page 470, 23 establishments appear. In one of them, neither women nor minors are employed. There are 20 establishments that report 10 hours as a working day for women and minors, and 18 make the same return as to male adults. None of the establishments run less than 10 hours daily. Two establishments run more than 10 hours daily for women and minors, and five establishments more than 10 hours for male adults. There are 17 establishments that run less than 10 hours on Saturday for all persons.

The industries which we have analyzed in detail, 14 in number, manufactured goods to the amount of \$500,968,641 annually, as shown in the latest Census, or 74.26 per cent of the grand total for all industries of \$674,634,269. The following table presents the whole number of establishments in each industry, the number employing women and minors and male adults, respectively, and the average daily working time for women and minors and for male adults; also, the average working time on Saturday.

Average Daily Working Time : By Industries.

INDUSTRIES.	Whole Number of Establishments	WOMEN AND MINORS		MALE ADULTS		ALL PERSONS (ON SATURDAY)	
		Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Working Time on Saturday	Average Hours
Agricultural implements, .	30	5	10.00	30	10.00	18	9.65
Arms and ammunition, .	40	14	9.80	40	9.67	24	9.51
Artificial teeth and dental work,	489	14	8.07	489	8.40	56	8.60
Artisans' tools,	140	25	9.77	140	9.90	83	9.25
Awnings, tents, and decorations,	14	9	9.89	14	10.00	6	9.67
Boots and shoes,	2,366	920	9.86	2,358	9.98	1,114	9.21
Boxes (paper and wooden), .	215	107	9.85	215	9.98	158	9.38
Brick, tiles, and sewer pipe, .	114	23	10.70	114	10.57	74	10.25
Brooms, brushes, and mops, .	72	23	9.50	72	9.91	36	8.72
Building,	3,773	207	9.94	3,773	9.99	1,778	9.68
Burial cases, caskets, coffins, etc.,	113	12	9.92	113	9.94	29	9.44
Buttons and dress trimmings, .	16	13	9.77	15	9.87	12	9.54
Carpetings,	46	28	9.86	36	9.81	15	7.93
Carriages and wagons, . . .	1,013	81	9.90	1,013	9.98	419	9.76
Cement, kaolin, lime, and plaster,	16	2	10.00	16	10.13	13	9.77
Charcoal and kindlers, . . .	11	-	-	11	9.82	1	10.00
Chemical preparations (compounded),	23	5	9.80	23	9.98	16	9.00
Clocks and watches,	47	13	9.85	47	9.84	11	8.95
Clothing,	2,402	1,958	9.75	1,151	9.92	813	9.75
Concrete walks, paving, etc., .	20	1	10.00	20	10.00	14	9.71
Cooking, lighting, and heating apparatus,	65	20	9.95	65	9.96	43	9.38
Cordage and twine,	52	27	9.93	52	9.91	35	8.70
Corks, bungs, and taps, . . .	4	3	9.50	4	9.63	3	8.50
Cotton goods,	165	153	10.01	165	10.15	151	7.69
Cotton, woollen, and other textiles,	4	4	10.00	4	10.25	4	8.00
Crayons, pencils, crucibles, etc.,	7	4	10.00	7	9.86	6	9.04
Drugs and medicines,	916	70	10.15	916	12.01	205	12.82
Dyestuffs,	9	2	9.50	9	10.00	4	9.00
Earthen, plaster, and stone ware,	22	8	9.75	22	9.91	15	9.17
Electrical apparatus and appliances,	40	13	9.73	40	10.19	25	9.87
Electroplating,	35	13	9.85	35	9.93	25	9.04
Emery and sand paper and cloth, etc.,	13	4	10.00	13	10.00	12	9.10
Fancy articles,	18	10	9.70	16	9.81	6	9.33
Fertilizers,	17	2	10.00	17	10.00	8	9.75
Fine arts and taxidermy, . .	23	5	8.50	20	9.75	3	8.67
Fireworks and matches, . . .	5	5	9.90	5	10.00	3	8.83

Average Daily Working Time: By Industries—Continued.

INDUSTRIES.	Whole Number of Establishments	WOMEN AND MINORS		MALE ADULTS		ALL PERSONS (ON SATURDAY)	
		Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Working Time on Saturday	Average Hours
Flax, hemp, and jute goods, .	9	7	10.29	9	10.11	6	7.96
Food preparations,	1,711	416	9.99	1,699	10.19	649	10.43
Furniture,	603	146	9.71	603	9.96	291	9.41
Gas and residual products, .	66	4	10.38	66	11.15	51	11.18
Glass,	20	9	9.83	20	9.93	11	8.82
Glue, isinglass, and starch, .	29	8	9.94	29	9.91	26	9.56
Hair work (animal and human),	55	41	9.40	27	9.76	19	9.71
Hose: rubber, linen, etc., .	3	3	10.00	3	10.00	3	9.33
Hosiery and knit goods, . .	60	48	9.61	58	9.97	42	8.45
Ink, mucilage, and paste, .	20	8	9.50	20	9.90	8	8.88
Ivory, bone, shell, and horn goods, etc.,	39	27	9.81	39	9.97	30	9.50
Jewelry burnishing and lapidary work,	7	1	9.00	7	9.79	4	9.00
Leather,	699	100	9.92	699	9.99	409	9.44
Linen,	3	3	10.00	3	10.00	2	6.25
Liquors and beverages (not spirituous),	63	12	9.67	63	10.00	29	10.76
Liquors: malt, distilled, and fermented,	218	14	9.50	218	10.13	90	10.25
Lumber,	466	24	9.88	466	10.01	212	9.82
Machines and machinery, .	622	175	9.96	622	9.97	446	9.25
Metals and metallic goods, .	2,732	430	9.92	2,732	10.01	1,213	9.66
Mixed textiles,	13	10	9.98	13	10.06	11	8.59
Models and patterns, . . .	51	9	9.33	51	9.90	38	9.38
Musical instruments and materials,	93	36	9.81	93	9.90	63	9.24
Oils and illuminating fluids, .	28	6	10.00	28	9.95	15	9.40
Paints, colors, and crude chemicals,	22	4	10.06	22	9.85	13	9.65
Paper and paper goods, . . .	148	118	9.65	148	10.28	114	9.57
Perfumes, toilet articles, etc.,	10	8	9.19	9	9.22	6	8.67
Photographs and photographic materials,	241	102	9.16	241	9.58	77	9.14
Polishes and dressing, . . .	65	15	9.47	65	9.88	25	8.52
Printing, publishing, and book-binding,	712	442	9.54	712	9.74	496	9.03
Print works, dye works, and bleacheries,	96	58	9.84	96	9.99	57	9.18
Railroad construction, . . .	15	6	10.00	15	9.93	15	9.47
Rubber and elastic goods, . .	41	32	9.95	41	9.98	32	9.19
Salt,	5	1	10.00	5	10.00	1	10.00
Scientific instruments and appliances,	65	29	9.55	65	9.84	34	9.26
Shipbuilding,	279	20	9.78	279	9.85	139	9.63
Silk and silk goods,	12	11	10.11	12	10.02	10	8.31

Average Daily Working Time : By Industries—Concluded.

INDUSTRIES.	Whole Number of Establishments	WOMEN AND MINORS		MALE ADULTS		ALL PERSONS (ON SATURDAY)	
		Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Daily Working Time	Average Hours	Establishments Reporting Working Time on Saturday	Average Hours
Sporting and athletic goods, .	27	11	9.84	27	9.97	14	9.21
Stone,	378	37	9.88	378	9.96	269	9.37
Straw and palm leaf goods, .	47	40	9.89	38	9.97	28	9.70
Tallow, candles, soap, and grease,	155	26	9.62	155	9.83	81	9.57
Tobacco, snuff, and cigars, .	302	128	9.39	302	9.59	150	8.09
Toys and games (children's), .	15	10	9.90	15	10.00	8	9.94
Trunks and valises,	25	6	9.33	25	9.80	13	9.08
Whips, lashes, and stocks, .	60	35	9.94	60	9.93	32	9.14
Wooden goods,	534	93	9.75	534	9.93	238	9.53
Woollen goods,	189	163	10.03	189	10.39	159	8.51
Worsted goods,	23	22	10.51	23	10.20	17	7.63
ALL INDUSTRIES,	23,431	6,757	9.79	22,104	10.04	10,934	9.55

Industries in which the average daily working time for women and minors is longer than 10 hours are Brick, Tiles, and Sewer Pipe, 10.70 hours; Cotton Goods, 10.01; Drugs and Medicines, 10.15; Flax, Hemp, and Jute Goods, 10.29; Gas and Residual Products, 10.38; Paints, Colors, and Crude Chemicals, 10.06; Silk and Silk Goods, 10.11; Woollen Goods, 10.03; and Worsted Goods, 10.51 hours. The same condition prevails as to male adults in the following industries: Brick, Tiles, and Sewer Pipe, 10.57 hours; Cement, Kaolin, Lime, and Plaster, 10.13; Cotton Goods, 10.15; Cotton, Woollen, and Other Textiles, 10.25; Drugs and Medicines, 12.01; Electrical Apparatus and Appliances, 10.19; Flax, Hemp, and Jute Goods, 10.11; Food Preparations, 10.19; Gas and Residual Products, 11.15; Liquors: Malt, Distilled, and Fermented, 10.13; Lumber, 10.01; Metals and Metallic Goods, 10.01; Mixed Textiles, 10.06; Paper and Paper Goods, 10.28; Silk and Silk Goods, 10.02; Woollen Goods, 10.39; and Worsted Goods, 10.20 hours.

The average daily working time in the following industries is, for women and minors, 10 hours: Agricultural Implements, Cement, Kaolin, Lime, and Plaster, Concrete Walks, Paving, etc., Cotton, Woollen, and Other Textiles, Crayons, Pencils, Crucibles, etc., Emery and Sand Paper and Cloth, etc., Fer-

tilizers, Hose: Rubber, Linen, etc., Linen, Oils and Illuminating Fluids, Railroad Construction, and Salt. Ten hours for male adults is the average daily working time in the following: Agricultural Implements, Awnings, Tents, and Decorations, Concrete Walks, Paving, etc., Dyestuffs, Emeiry and Sand Paper and Cloth, etc., Fertilizers, Fireworks and Matches, Hose: Rubber, Linen, etc., Linen, Liquors and Beverages (Not Spirituous), Salt, and Toys and Games (Children's).

The working day averages between nine and ten hours in length for women and minors in the following: Arms and Ammunition, Artisans' Tools, Awnings, Tents, and Decorations, Boots and Shoes, Boxes (Paper and Wooden), Brooms, Brushes, and Mops, Building, Burial Cases, Caskets, Coffins, etc., Buttons and Dress Trimmings, Carpetings, Carriages and Wagons, Chemical Preparations (Compounded), Clocks and Watches, Clothing, Cooking, Lighting, and Heating Apparatus, Cordage and Twine, Corks, Bungs, and Taps, Dyestuffs, Earthen, Plaster, and Stone Ware, Electrical Apparatus and Appliances, Electroplating, Fancy Articles, Fireworks and Matches, Food Preparations, Furniture, Glass, Glue, Isinglass, and Starch, Hair Work (Animal and Human), Hosiery and Knit Goods, Ink, Mucilage, and Paste, Ivory, Bone, Shell, and Horn Goods, etc., Jewelry Burnishing and Lapidary Work, Leather, Liquors and Beverages (Not Spirituous), Liquors: Malt, Distilled, and Fermented, Lumber, Machines and Machinery, Metals and Metallic Goods, Mixed Textiles, Models and Patterns, Musical Instruments and Materials, Paper and Paper Goods, Perfumes, Toilet Articles, etc., Photographs and Photographic Materials, Polishes and Dressing, Printing, Publishing, and Bookbinding, Print Works, Dye Works, and Bleacheries, Rubber and Elastic Goods, Scientific Instruments and Appliances, Shipbuilding, Sporting and Athletic Goods, Stone, Straw and Palm Leaf Goods, Tallow, Candles, Soap, and Grease, Tobacco, Snuff, and Cigars, Toys and Games (Children's), Trunks and Valises, Whips, Lashes, and Stocks, and Wooden Goods. In all of these industries the same condition prevails as to male adults, except in Awnings, Tents, and Decorations, Dyestuffs, Electrical Apparatus and Appliances, Fireworks and Matches, Food Preparations, Liquors and Beverages (Not Spirituous),

Liquors: Malt, Distilled, and Fermented, Lumber, Metals and Metallic Goods, Mixed Textiles, Paper and Paper Goods, and Toys and Games (Children's), in each of which the average daily working time for male adults is 10 hours or more.

In Charcoal and Kindlers, in which neither women nor minors are employed, and in Railroad Construction the average length of the working day for male adults is less than 10 hours. In Artificial Teeth and Dental Work less than nine hours is the average daily working time for male adults and women and minors. In Fine Arts and Taxidermy the average daily working time for women and minors is less than nine hours.

In all industries except the following, less than 10 hours constitutes the average working time for all persons on Saturday: Brick, Tiles, and Sewer Pipe, Charcoal and Kindlers, Drugs and Medicines, Food Preparations, Gas and Residual Products, Liquors and Beverages (Not Spirituous), Liquors: Malt, Distilled, and Fermented, and Salt. The following industries run less than eight hours but not less than seven hours, upon the average, on Saturday: Carpetings, Cotton Goods, Flax, Hemp, and Jute Goods, and Worsted Goods; the average working time is less than nine hours but not less than eight hours on Saturday in Artificial Teeth and Dental Work, Brooms, Brushes, and Mops, Clocks and Watches, Cordage and Twine, Corks, Bunges, and Taps, Cotton, Woollen, and Other Textiles, Fine Arts and Taxidermy, Fireworks and Matches, Glass, Hosiery and Knit Goods, Ink, Mucilage, and Paste, Mixed Textiles, Perfumes, Toilet Articles, etc., Polishes and Dressing, Silk and Silk Goods, Tobacco, Snuff, and Cigars, and Woollen Goods. In one industry, Linen, the average working time on Saturday is 6.25 hours.

The summary for all industries shows the average daily working time for women and minors to be 9.79 hours, and for male adults 10.04 hours, while the average working time for all persons on Saturday is 9.55 hours.

The second division of the subject relates to the longest and shortest daily working time for male adults, and the average daily working time for all persons from May to November, and from November to May. A statistical presentation for each industry follows:

LONGEST AND SHORTEST DAILY WORKING TIME FOR MALE ADULTS
AND AVERAGE DAILY WORKING TIME FOR ALL PERSONS: BY INDUSTRIES.
NUMBER AND PERCENTAGES FOR ESTABLISHMENTS.

AGRICULTURAL IMPLEMENTS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	3	1	2	-	10.00	3.33	6.67
Between 8 and 9 hours,	-	-	-	1	-	-	-	3.33
9 hours,	-	2	1	2	-	6.67	3.33	6.67
Between 9 and 10 hours,	-	-	2	1	-	-	6.67	3.33
10 hours,	15	8	10	8	50.00	26.67	33.34	26.67
More than 10 hours,	1	-	-	-	3.33	-	-	-
Not stated,	14	17	16	16	46.67	56.66	53.33	53.33
TOTALS,	30	30	30	30	100.00	100.00	100.00	100.00

ARMS AND AMMUNITION.

Under 7 hours,	-	1	-	-	-	2.50	-	-
7 hours,	-	-	-	1	-	-	-	2.50
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	3	3	2	2.50	7.50	7.50	5.00
Between 8 and 9 hours,	-	1	3	2	-	2.50	7.50	5.00
9 hours,	1	1	-	3	2.50	2.50	-	7.50
Between 9 and 10 hours,	-	1	-	1	-	2.50	-	2.50
10 hours,	19	14	15	12	47.50	35.00	37.50	30.00
More than 10 hours,	2	-	-	-	5.00	-	-	-
Not stated,	17	19	19	19	42.50	47.50	47.50	47.50
TOTALS,	40	40	40	40	100.00	100.00	100.00	100.00

ARTIFICIAL TEETH AND DENTAL WORK.

Under 7 hours,	3	10	5	5	0.61	2.05	1.02	1.02
7 hours,	2	3	1	4	0.41	0.61	0.20	0.82
Between 7 and 8 hours,	-	-	1	1	-	-	0.20	0.20
8 hours,	9	15	17	17	1.84	3.07	3.48	3.48
Between 8 and 9 hours,	1	-	1	-	0.20	-	0.20	-
9 hours,	5	4	5	5	1.02	0.82	1.02	1.02
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	14	5	9	8	2.86	1.02	1.84	1.64
More than 10 hours,	12	1	2	2	2.46	0.20	0.41	0.41
Not stated,	442	451	448	447	90.60	92.23	91.63	91.41
TOTALS,	489	489	489	489	100.00	100.00	100.00	100.00

ARTISANS' TOOLS.

Under 7 hours,	-	3	-	1	-	2.14	-	0.71
7 hours,	-	3	3	4	-	2.14	2.14	2.86
Between 7 and 8 hours,	-	1	1	-	-	0.71	0.71	-
8 hours,	4	13	6	10	2.86	9.29	4.29	7.14
Between 8 and 9 hours,	-	3	-	1	-	2.14	-	0.71
9 hours,	2	19	4	6	1.43	13.57	2.86	4.29
Between 9 and 10 hours,	-	1	8	7	-	0.71	5.72	5.00
10 hours,	71	33	45	36	50.71	23.57	32.14	25.72
More than 10 hours,	7	-	1	2	5.00	-	0.71	1.43
Not stated,	56	64	72	73	40.00	45.73	51.43	52.14
TOTALS,	140	140	140	140	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

AWNINGS, TENTS, AND DECORATIONS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	1	-	7.14	-	7.14
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	2	1	-	-	14.29	7.14	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	4	2	2	2	28.58	14.29	14.29	14.29
More than 10 hours,	1	-	-	-	7.14	-	-	-
Not stated,	9	9	11	11	64.28	64.28	78.57	78.57
TOTALS,	14	14	14	14	100.00	100.00	100.00	100.00

BOOTS AND SHOES.

Under 7 hours,	-	50	13	16	-	2.11	0.55	0.68
7 hours,	-	18	12	13	-	0.76	0.51	0.55
Between 7 and 8 hours,	-	2	2	5	-	0.08	0.08	0.21
8 hours,	12	103	67	100	0.51	4.35	2.83	4.23
Between 8 and 9 hours,	-	9	10	9	-	0.38	0.42	0.38
9 hours,	12	302	92	140	0.51	12.77	3.89	5.92
Between 9 and 10 hours,	4	10	142	143	0.17	0.42	6.00	6.04
10 hours,	841	342	506	384	33.54	14.46	21.39	16.23
More than 10 hours,	77	7	13	14	3.25	0.30	0.55	0.59
Not stated,	1,420	1,523	1,509	1,542	60.02	64.37	63.78	65.17
TOTALS,	2,366	2,366	2,366	2,366	100.00	100.00	100.00	100.00

BOXES (PAPER AND WOODEN).

Under 7 hours,	-	6	2	1	-	2.79	0.93	0.47
7 hours,	-	1	-	-	-	0.47	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	13	5	12	-	6.05	2.33	5.58
Between 8 and 9 hours,	-	7	1	-	-	3.25	0.47	-
9 hours,	2	30	12	24	0.93	13.95	5.58	11.16
Between 9 and 10 hours,	-	5	2	12	-	2.33	0.93	5.58
10 hours,	128	72	106	75	59.54	33.49	49.30	34.88
More than 10 hours,	14	-	4	3	6.51	-	1.86	1.40
Not stated,	71	81	83	88	33.02	37.67	38.60	40.93
TOTALS,	215	215	215	215	100.00	100.00	100.00	100.00

BRICK, TILES, AND SEWER PIPE.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	1	-	-	-	0.88	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	9	-	10	-	7.89	-	8.77
Between 8 and 9 hours,	-	2	-	2	-	1.75	-	1.75
9 hours,	-	16	1	10	-	14.04	0.88	8.77
Between 9 and 10 hours,	-	-	2	4	-	-	1.75	3.51
10 hours,	29	27	39	15	25.44	23.68	34.21	13.16
More than 10 hours,	44	15	25	2	38.60	13.16	21.93	1.75
Not stated,	41	44	47	71	35.96	38.60	41.23	62.29
TOTALS,	114	114	114	114	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

BROOMS, BRUSHES, AND MOPS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	—	3	—	—	—	4.17	—	—
7 hours,	—	2	—	—	—	2.78	—	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	1	5	1	4	1.39	6.94	1.39	5.56
Between 8 and 9 hours,	—	1	2	3	—	1.39	2.78	4.17
9 hours,	4	9	4	3	5.56	12.50	5.56	4.17
Between 9 and 10 hours,	1	—	2	2	1.39	—	2.78	2.78
10 hours,	18	7	15	11	25.00	9.72	20.83	15.27
More than 10 hours,	6	1	2	2	8.33	1.39	2.78	2.78
Not stated,	42	44	46	47	58.33	61.11	63.88	65.27
TOTALS,	72	72	72	72	100.00	100.00	100.00	100.00

BUILDING.

Under 7 hours,	1	17	11	38	0.03	0.45	0.29	1.01
7 hours,	—	17	4	20	—	0.45	0.11	0.53
Between 7 and 8 hours,	—	16	1	6	—	0.42	0.03	0.16
8 hours,	8	349	32	267	0.21	9.25	0.85	7.08
Between 8 and 9 hours,	2	75	7	54	0.05	1.99	0.19	1.43
9 hours,	9	320	52	481	0.24	8.48	1.38	12.75
Between 9 and 10 hours,	—	7	48	82	—	0.19	1.27	2.17
10 hours,	1,542	635	1,272	397	40.87	16.83	33.71	10.52
More than 10 hours,	32	2	3	1	0.85	0.05	0.08	0.03
Not stated,	2,179	2,335	2,343	2,427	57.75	61.89	62.09	64.32
TOTALS,	3,773	3,773	3,773	3,773	100.00	100.00	100.00	100.00

BURIAL CASES, CASKETS, COFFINS, ETC.

Under 7 hours,	—	—	—	—	—	—	—	—
7 hours,	—	—	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	1	5	2	2	0.88	4.42	1.77	1.77
Between 8 and 9 hours,	—	2	—	1	—	1.77	—	0.88
9 hours,	1	2	1	4	0.88	1.77	0.88	3.54
Between 9 and 10 hours,	—	—	—	1	—	—	—	0.88
10 hours,	27	17	21	15	23.90	15.05	18.59	13.28
More than 10 hours,	2	—	—	—	1.77	—	—	—
Not stated,	82	87	89	90	72.57	76.99	78.76	79.65
TOTALS,	113	113	113	113	100.00	100.00	100.00	100.00

BUTTONS AND DRESS TRIMMINGS.

Under 7 hours,	—	—	—	—	—	—	—	—
7 hours,	—	—	1	—	—	—	6.25	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	—	1	1	2	—	6.25	6.25	12.50
Between 8 and 9 hours,	—	2	—	1	—	12.50	—	6.25
9 hours,	—	—	1	2	—	—	6.25	12.50
Between 9 and 10 hours,	—	1	2	1	—	6.25	12.50	6.25
10 hours,	9	6	6	5	56.25	37.50	37.50	31.25
More than 10 hours,	2	—	—	—	12.50	—	—	—
Not stated,	5	6	5	5	31.25	37.50	31.25	31.25
TOTALS,	16	16	16	16	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

CARPETINGS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours, . . .	-	3	1	3	-	6.52	2.17	6.52
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	1	-	-	-	2.17	-	-
Between 8 and 9 hours, . . .	-	2	-	-	-	4.35	-	-
9 hours, . . .	-	1	-	-	-	2.17	-	-
Between 9 and 10 hours, . . .	-	-	-	-	-	-	-	-
10 hours, . . .	7	6	15	11	15.22	13.05	32.61	23.91
More than 10 hours, . . .	9	2	-	-	19.56	4.35	-	-
Not stated, . . .	30	31	30	32	65.22	67.39	65.22	69.57
TOTALS, . . .	46	46	46	46	100.00	100.00	100.00	100.00

CARRIAGES AND WAGONS.

Under 7 hours, . . .	-	9	4	7	-	0.89	0.39	0.69
7 hours, . . .	-	5	2	7	-	0.49	0.20	0.69
Between 7 and 8 hours, . . .	-	3	-	-	-	0.30	-	-
8 hours, . . .	-	68	5	51	-	6.71	0.49	5.04
Between 8 and 9 hours, . . .	1	9	1	7	0.10	0.89	0.10	0.69
9 hours, . . .	-	43	9	68	-	4.24	0.89	6.71
Between 9 and 10 hours, . . .	-	1	11	14	-	0.10	1.09	1.38
10 hours, . . .	337	188	322	193	33.27	18.56	31.79	19.05
More than 10 hours, . . .	30	-	6	-	2.96	-	0.59	-
Not stated, . . .	645	687	653	666	63.67	67.82	64.46	65.75
TOTALS, . . .	1,013	1,013	1,013	1,013	100.00	100.00	100.00	100.00

CEMENT, KAOLIN, LIME, AND PLASTER.

Under 7 hours, . . .	-	-	-	-	-	-	-	-
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	-	-	-	-	-	-	-
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	-	2	-	1	-	12.50	-	6.25
Between 9 and 10 hours, . . .	-	-	1	2	-	-	6.25	12.50
10 hours, . . .	9	9	10	8	56.25	56.25	62.50	50.00
More than 10 hours, . . .	3	1	1	1	18.75	6.25	6.25	6.25
Not stated, . . .	4	4	4	4	25.00	25.00	25.00	25.00
TOTALS, . . .	16	16	16	16	100.00	100.00	100.00	100.00

CHARCOAL AND KINDLERS.

Under 7 hours, . . .	-	-	-	-	-	-	-	-
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	-	-	-	-	-	-	-
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	-	-	-	-	-	-	-	-
Between 9 and 10 hours, . . .	-	-	-	-	-	-	-	-
10 hours, . . .	1	1	-	-	9.09	9.09	-	-
More than 10 hours, . . .	-	-	-	-	-	-	-	-
Not stated, . . .	10	10	11	11	90.91	90.91	100.00	100.00
TOTALS, . . .	11	11	11	11	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

CHEMICAL PREPARATIONS (COMPOUNDED).

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	1	1	-	4.35	4.35	4.35
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	1	1	-	8.70	4.35	4.35
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	2	2	1	1	8.70	8.70	4.35	4.35
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	11	10	9	9	47.82	43.47	39.13	39.13
More than 10 hours,	2	-	-	-	8.70	-	-	-
Not stated,	8	8	11	11	34.78	34.78	47.82	47.82
TOTALS,	23	23	23	23	100.00	100.00	100.00	100.00

CLOCKS AND WATCHES.

Under 7 hours,	-	2	-	-	-	4.26	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	1	1	1	1	2.13	2.13	2.13	2.13
8 hours,	-	1	2	-	-	2.13	4.26	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	2	5	2	1	4.26	10.63	4.26	2.13
Between 9 and 10 hours,	-	-	2	1	-	-	4.26	2.13
10 hours,	7	2	3	5	14.89	4.26	6.38	10.63
More than 10 hours,	2	-	-	-	4.26	-	-	-
Not stated,	35	36	37	39	74.46	76.59	78.71	82.98
TOTALS,	47	47	47	47	100.00	100.00	100.00	100.00

CLOTHING.

Under 7 hours,	1	26	8	14	0.04	1.08	0.33	0.58
7 hours,	1	4	10	12	0.04	0.17	0.42	0.50
Between 7 and 8 hours,	-	3	1	1	-	0.13	0.04	0.04
8 hours,	7	62	58	84	0.29	2.58	2.42	3.50
Between 8 and 9 hours,	3	14	12	11	0.13	0.58	0.50	0.46
9 hours,	49	78	154	159	2.04	3.25	6.41	6.62
Between 9 and 10 hours,	13	13	37	32	0.54	0.54	1.54	1.33
10 hours,	265	201	350	283	11.03	8.37	14.57	11.78
More than 10 hours,	109	8	32	24	4.54	0.33	1.33	1.00
Not stated,	1,954	1,993	1,740	1,782	81.35	82.97	72.44	74.19
TOTALS,	2,402	2,402	2,402	2,402	100.00	100.00	100.00	100.00

CONCRETE WALKS, PAVING, ETC.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	-	-	5.00	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	3	1	2	-	15.00	5.00	10.00
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	13	6	8	5	65.00	30.00	40.00	25.00
More than 10 hours,	1	1	1	-	5.00	5.00	5.00	-
Not stated,	6	9	10	13	30.00	45.00	50.00	65.00
TOTALS,	20	20	20	20	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

COOKING, LIGHTING, AND HEATING APPARATUS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	1.54	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	1	-	-	-	1.54	-	-
8 hours,	-	8	1	2	-	12.31	1.54	3.08
Between 8 and 9 hours,	-	6	-	3	-	9.23	-	4.61
9 hours,	1	8	4	5	1.54	12.31	6.15	7.69
Between 9 and 10 hours,	-	-	2	2	-	-	3.08	3.08
10 hours,	35	19	29	22	53.85	29.23	44.62	33.84
More than 10 hours,	10	-	4	1	15.38	-	6.15	1.54
Not stated,	19	22	25	30	29.23	33.84	38.46	46.16
TOTALS,	65	65	65	65	100.00	100.00	100.00	100.00

CORDAGE AND TWINE.

Under 7 hours,	-	2	-	1	-	3.85	-	1.92
7 hours,	-	2	-	-	-	3.85	-	-
Between 7 and 8 hours,	-	-	-	1	-	-	-	1.92
8 hours,	-	6	-	4	-	11.54	-	7.69
Between 8 and 9 hours,	-	3	-	1	-	5.77	-	1.92
9 hours,	-	9	2	3	-	17.31	3.85	5.77
Between 9 and 10 hours,	1	1	1	2	1.92	1.92	1.92	3.85
10 hours,	16	3	26	15	30.17	5.77	50.00	28.85
More than 10 hours,	15	5	1	2	23.85	9.61	1.92	3.85
Not stated,	20	21	22	23	38.46	40.38	42.31	44.23
TOTALS,	52	52	52	52	100.00	100.00	100.00	100.00

CORKS, BUNGS, AND TAPS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	1	-	25.00	-	25.00
Between 8 and 9 hours,	1	1	1	1	25.00	25.00	25.00	25.00
9 hours,	-	1	-	-	-	25.00	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	2	-	2	1	50.00	-	50.00	25.00
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	1	1	1	1	25.00	25.00	25.00	25.00
TOTALS,	4	4	4	4	100.00	100.00	100.00	100.00

COTTON GOODS.

Under 7 hours,	-	26	1	1	-	15.76	0.61	0.61
7 hours,	-	1	1	-	-	0.61	0.61	-
Between 7 and 8 hours,	-	34	1	-	-	20.61	0.61	-
8 hours,	-	6	-	1	-	3.63	-	0.61
Between 8 and 9 hours,	-	30	1	1	-	18.18	0.61	0.61
9 hours,	1	7	1	4	0.61	4.24	0.61	2.42
Between 9 and 10 hours,	-	1	3	3	-	0.61	1.81	1.81
10 hours,	20	19	125	122	12.12	11.52	75.75	73.94
More than 10 hours,	132	24	15	14	80.00	14.54	9.09	8.48
Not stated,	12	17	17	19	7.27	10.30	10.30	11.52
TOTALS,	165	165	165	165	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

COTTON, WOOLLEN, AND OTHER TEXTILES.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	25.00	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	-	-	25.00	-	-
Between 8 and 9 hours,	-	1	-	-	-	25.00	-	-
9 hours,	-	-	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	1	1	3	3	25.00	25.00	75.00	75.00
More than 10 hours,	3	-	-	-	75.00	-	-	-
Not stated,	-	-	1	1	-	-	25.00	25.00
TOTALS,	4	4	4	4	100.00	100.00	100.00	100.00

CRAYONS, PENCILS, CRUCIBLES, ETC.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	-	1	-	28.57	-	14.29
Between 8 and 9 hours,	-	1	-	-	-	14.29	-	-
Between 9 and 10 hours,	-	1	-	1	-	14.29	-	14.29
10 hours,	6	2	6	4	85.71	28.57	85.71	57.13
More than 10 hours,	1	-	-	-	14.29	-	-	-
Not stated,	-	1	1	1	-	14.28	14.29	14.29
TOTALS,	7	7	7	7	100.00	100.00	100.00	100.00

DRUGS AND MEDICINES.

Under 7 hours,	-	15	1	1	-	1.64	0.11	0.11
7 hours,	1	6	1	-	0.11	0.65	0.11	-
Between 7 and 8 hours,	-	1	1	1	-	0.11	0.11	0.11
8 hours,	1	9	4	4	0.11	0.98	0.44	0.44
Between 8 and 9 hours,	-	2	2	2	-	0.22	0.22	0.22
9 hours,	4	9	6	3	0.44	0.98	0.65	0.33
Between 9 and 10 hours,	-	2	1	1	-	0.22	0.11	0.11
10 hours,	35	44	42	46	3.82	4.80	4.59	5.02
More than 10 hours,	150	90	118	106	16.37	9.83	12.66	11.57
Not stated,	725	738	740	752	79.15	80.57	81.00	82.09
TOTALS,	916	916	916	916	100.00	100.00	100.00	100.00

DYESTUFFS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	1	-	-	-	11.11	-	-
9 hours,	-	-	1	1	-	-	11.11	11.11
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	3	2	2	2	33.33	22.22	22.22	22.22
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	6	6	6	6	66.67	66.67	66.67	66.67
TOTALS,	9	9	9	9	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

EARTHEN, PLASTER, AND STONE WARE.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	-	1	1	-	-	4.55	4.55
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	1	-	-	4.55	4.55	-	-
Between 8 and 9 hours,	-	1	-	-	-	4.55	-	-
9 hours,	-	2	1	4	-	9.08	4.55	18.18
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	13	9	10	7	59.09	40.91	45.45	31.82
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	8	9	10	10	36.36	40.91	45.45	45.45
TOTALS,	22	22	22	22	100.00	100.00	100.00	100.00

ELECTRICAL APPARATUS AND APPLIANCES.

Under 7 hours,	1	2	2	1	2.50	5.00	5.00	2.50
7 hours,	-	-	1	-	-	-	2.50	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	1	1	-	5.00	2.50	2.50
Between 8 and 9 hours,	-	2	-	-	-	5.00	-	-
9 hours,	1	4	-	-	2.50	10.00	-	-
Between 9 and 10 hours,	-	1	-	-	-	2.50	-	-
10 hours,	14	10	16	17	35.00	25.00	40.00	42.50
More than 10 hours,	10	3	3	4	25.00	7.50	7.50	10.00
Not stated,	14	16	17	17	35.00	40.00	42.50	42.50
TOTALS,	40	40	40	40	100.00	100.00	100.00	100.00

ELECTROPLATING.

Under 7 hours,	-	1	-	-	-	2.86	-	-
7 hours,	-	-	1	-	-	-	2.86	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	-	-	-	2.86	-	-	-
Between 8 and 9 hours,	-	2	-	1	-	5.71	-	2.86
9 hours,	-	8	1	2	-	22.86	2.86	5.71
Between 9 and 10 hours,	1	2	3	3	2.86	5.71	8.57	8.57
10 hours,	13	8	15	13	51.43	22.86	42.86	37.14
More than 10 hours,	3	-	-	-	8.57	-	-	-
Not stated,	12	14	15	16	34.28	40.00	42.85	45.72
TOTALS,	35	35	35	35	100.00	100.00	100.00	100.00

EMERY AND SAND PAPER AND CLOTH, ETC.

Under 7 hours,	-	1	-	-	-	7.69	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	-	-	7.69	-	-
Between 8 and 9 hours,	-	1	-	-	-	7.69	-	-
9 hours,	-	2	1	1	-	15.39	7.69	7.69
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	8	6	8	8	61.54	46.15	61.54	61.54
More than 10 hours,	3	-	-	-	23.07	-	-	-
Not stated,	2	2	4	4	15.39	15.39	30.77	30.77
TOTALS,	13	13	13	13	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

FANCY ARTICLES.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	5.56	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	1	-	-	-	5.56	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	6	4	3	3	33.33	22.22	16.66	16.66
More than 10 hours,	1	-	-	1	5.56	-	-	5.56
Not stated,	11	13	14	14	61.11	72.22	77.78	77.78
TOTALS,	18	18	18	18	100.00	100.00	100.00	100.00

FERTILIZERS.

Under 7 hours,	-	1	-	-	-	5.88	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	2	-	-	-	11.77	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	6	5	6	7	35.29	29.41	35.29	41.17
More than 10 hours,	2	-	1	-	11.77	-	5.88	-
Not stated,	9	9	10	10	52.94	52.94	58.83	58.83
TOTALS,	17	17	17	17	100.00	100.00	100.00	100.00

FINE ARTS AND TAXIDERMV.

Under 7 hours,	-	-	1	-	-	-	4.35	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	-	-	4.35	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	1	-	1	1	4.35	-	4.35	4.35
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	1	1	1	1	4.35	4.35	4.35	4.35
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	21	21	20	21	91.30	91.30	86.95	91.30
TOTALS,	23	23	23	23	100.00	100.00	100.00	100.00

FIREWORKS AND MATCHES.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	1	-	1	-	20.00	-	20.00
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	5	4	4	2	100.00	80.00	80.00	40.00
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	-	-	1	2	-	-	20.00	40.00
TOTALS,	5	5	5	5	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

FLAX, HEMP, AND JUTE GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	11.11	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	3	-	-	-	33.33	-	-
9 hours,	-	1	1	1	-	11.11	11.11	11.11
Between 9 and 10 hours,	1	-	1	-	11.11	-	11.11	-
10 hours,	-	-	5	6	-	-	55.56	66.67
More than 10 hours,	5	1	-	-	55.56	11.11	-	-
Not stated,	3	3	2	2	33.33	33.34	22.22	22.22
TOTALS,	9	9	9	9	100.00	100.00	100.00	100.00

FOOD PREPARATIONS.

Under 7 hours,	3	55	11	16	0.17	3.21	0.65	0.94
7 hours,	-	19	4	7	-	1.11	0.23	0.41
Between 7 and 8 hours,	-	-	1	-	-	-	0.06	-
8 hours,	8	87	21	61	0.47	5.08	1.23	3.56
Between 8 and 9 hours,	1	2	4	6	0.06	0.12	0.23	0.35
9 hours,	27	57	25	59	1.58	3.33	1.46	3.45
Between 9 and 10 hours,	2	1	6	13	0.12	0.06	0.35	0.76
10 hours,	322	324	379	320	18.82	18.94	22.15	18.70
More than 10 hours,	254	38	101	54	14.84	2.22	5.90	3.16
Not stated,	1,094	1,128	1,159	1,175	63.94	65.93	67.74	68.67
TOTALS,	1,711	1,711	1,711	1,711	100.00	100.00	100.00	100.00

FURNITURE.

Under 7 hours,	-	4	-	-	-	0.66	-	-
7 hours,	-	-	-	1	-	-	-	0.17
Between 7 and 8 hours,	-	-	-	2	-	-	-	0.33
8 hours,	3	39	11	26	0.50	6.47	1.82	4.31
Between 8 and 9 hours,	-	13	-	2	-	2.16	-	0.33
9 hours,	2	70	17	49	0.33	11.61	2.82	8.13
Between 9 and 10 hours,	-	5	10	23	-	0.83	1.66	3.81
10 hours,	238	105	190	118	39.47	17.41	31.51	19.57
More than 10 hours,	21	-	2	2	3.48	-	0.33	0.33
Not stated,	339	367	373	380	56.22	60.86	61.86	63.02
TOTALS,	603	603	603	603	100.00	100.00	100.00	100.00

GAS AND RESIDUAL PRODUCTS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	2	-	-	-	3.03	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	3	1	1	1.52	4.54	1.52	1.52
Between 8 and 9 hours,	-	-	1	1	-	-	1.52	1.52
9 hours,	-	1	-	-	-	1.52	-	-
Between 9 and 10 hours,	-	-	-	1	-	-	-	1.52
10 hours,	10	14	13	12	15.15	21.21	19.70	18.18
More than 10 hours,	41	29	32	32	62.12	43.94	48.48	48.48
Not stated,	14	17	19	19	21.21	25.76	28.78	28.78
TOTALS,	66	66	66	66	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

GLASS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	2	-	-	-	10.00	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	1	1	-	10.00	5.00	5.00
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	3	1	-	-	15.00	5.00	-
Between 9 and 10 hours,	1	-	-	1	5.00	-	-	5.00
10 hours,	7	3	7	7	35.00	15.00	35.00	35.00
More than 10 hours,	2	-	-	-	10.00	-	-	-
Not stated,	10	10	11	11	50.00	50.00	55.00	55.00
TOTALS,	20	20	20	20	100.00	100.00	100.00	100.00

GLUE, ISINGLASS, AND STARCH.

Under 7 hours,	-	-	-	1	-	-	-	3.45
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	3	1	-	-	10.34	3.45	-
Between 8 and 9 hours,	1	-	-	-	-	-	-	-
9 hours,	1	6	2	4	3.45	20.69	6.90	13.79
Between 9 and 10 hours,	1	2	-	2	3.45	6.90	-	6.90
10 hours,	16	11	14	12	55.17	37.93	48.27	41.38
More than 10 hours,	6	-	1	-	20.69	-	3.45	-
Not stated,	5	7	11	10	17.24	24.14	37.93	34.48
TOTALS,	29	29	29	29	100.00	100.00	100.00	100.00

HAIR WORK (ANIMAL AND HUMAN).

Under 7 hours,	-	1	-	-	-	1.82	-	-
7 hours,	-	-	-	1	-	-	-	1.82
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	2	2	3	2	3.63	3.63	5.46	3.63
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	1	5	4	3	1.82	9.09	7.28	5.46
Between 9 and 10 hours,	-	-	2	-	-	-	3.63	-
10 hours,	7	1	5	7	12.73	1.82	9.09	12.73
More than 10 hours,	1	1	2	2	1.82	1.82	3.63	3.63
Not stated,	44	45	39	40	80.00	81.82	70.91	72.73
TOTALS,	55	55	55	55	100.00	100.00	100.00	100.00

HOSE: RUBBER, LINEN, ETC.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	3	2	2	2	100.00	66.67	66.67	66.67
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	-	1	1	1	-	33.33	33.33	33.33
TOTALS,	3	3	3	3	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

HOSIERY AND KNIT GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours, . . .	-	5	-	3	-	8.33	-	5.00
7 hours, . . .	-	-	-	2	-	-	-	3.33
Between 7 and 8 hours, . . .	-	2	-	-	-	3.33	-	-
8 hours, . . .	-	4	1	2	-	6.67	1.67	3.33
Between 8 and 9 hours, . . .	-	3	-	1	-	5.00	-	1.67
9 hours, . . .	2	4	3	1	3.33	6.67	5.00	1.67
Between 9 and 10 hours, . . .	1	2	-	-	1.67	3.33	-	-
10 hours, . . .	18	14	26	18	30.00	23.33	43.33	30.00
More than 10 hours, . . .	14	1	-	-	23.33	1.67	-	-
Not stated, . . .	25	25	30	33	41.67	41.67	50.00	55.00
TOTALS, . . .	60	60	60	60	100.00	100.00	100.00	100.00

INK, MUCILAGE, AND PASTE.

Under 7 hours, . . .	-	1	-	-	-	5.00	-	-
7 hours, . . .	-	-	1	1	-	-	5.00	5.00
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	2	-	2	-	10.00	-	10.00
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	-	2	-	-	-	10.00	-	-
Between 9 and 10 hours, . . .	-	-	-	1	-	-	-	5.00
10 hours, . . .	6	2	6	4	30.00	10.00	30.00	20.00
More than 10 hours, . . .	1	-	1	-	5.00	-	5.00	-
Not stated, . . .	13	13	12	12	65.00	65.00	60.00	60.00
TOTALS, . . .	20	20	20	20	100.00	100.00	100.00	100.00

IVORY, BONE, SHELL, AND HORN GOODS, ETC.

Under 7 hours, . . .	-	1	-	-	-	2.56	-	-
7 hours, . . .	-	-	-	1	-	-	-	2.56
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	1	5	4	3	2.56	12.82	10.25	7.70
Between 8 and 9 hours, . . .	-	1	-	-	-	2.56	-	-
9 hours, . . .	1	2	3	5	2.56	5.13	7.70	12.82
Between 9 and 10 hours, . . .	-	1	-	1	-	2.56	-	2.56
10 hours, . . .	22	18	20	17	56.41	46.16	51.28	43.59
More than 10 hours, . . .	5	-	-	-	12.82	-	-	-
Not stated, . . .	10	11	12	12	25.65	28.21	30.77	30.77
TOTALS, . . .	39	39	39	39	100.00	100.00	100.00	100.00

JEWELRY BURNISHING AND LAPIDARY WORK.

Under 7 hours, . . .	-	-	-	-	-	-	-	-
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	1	-	-	-	14.29	-	-
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	1	-	1	2	14.29	-	14.29	28.58
Between 9 and 10 hours, . . .	-	-	-	-	-	-	-	-
10 hours, . . .	2	1	1	-	28.58	14.29	14.29	-
More than 10 hours, . . .	-	-	-	-	-	-	-	-
Not stated, . . .	4	5	5	5	57.13	71.42	71.42	71.42
TOTALS, . . .	7	7	7	7	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

LEATHER.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	—	11	4	8	—	1.57	0.57	1.14
7 hours,	—	2	—	1	—	0.29	—	0.14
Between 7 and 8 hours,	—	2	—	1	—	0.29	—	0.14
8 hours,	1	21	6	10	0.14	3.00	0.86	1.43
Between 8 and 9 hours,	1	9	2	3	0.14	1.29	0.29	0.43
9 hours,	2	100	15	27	0.29	14.31	2.15	3.87
Between 9 and 10 hours,	2	4	23	22	0.29	0.57	3.29	3.15
10 hours,	319	175	265	227	45.64	25.03	37.91	32.48
More than 10 hours,	38	3	8	4	5.43	0.43	1.14	0.57
Not stated,	336	372	376	396	48.07	53.22	53.79	56.65
TOTALS,	699	699	699	699	100.00	100.00	100.00	100.00

LINEN.

Under 7 hours,	—	1	—	—	—	33.33	—	—
7 hours,	—	—	—	—	—	—	—	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	—	—	—	—	—	—	—	—
Between 8 and 9 hours,	—	—	—	—	—	—	—	—
9 hours,	—	—	—	—	—	—	—	—
Between 9 and 10 hours,	—	—	—	—	—	—	—	—
10 hours,	—	—	2	2	—	—	66.67	66.67
More than 10 hours,	2	1	—	—	66.67	33.33	—	—
Not stated,	1	1	1	1	33.33	33.34	33.33	33.33
TOTALS,	3	3	3	3	100.00	100.00	100.00	100.00

LIQUORS AND BEVERAGES (NOT SPIRITUOUS).

Under 7 hours,	—	9	1	2	—	14.28	1.59	3.17
7 hours,	—	1	—	—	—	1.59	—	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	—	5	1	8	—	7.94	1.59	12.70
Between 8 and 9 hours,	—	—	—	—	—	—	—	—
9 hours,	—	—	1	1	—	—	1.59	1.59
Between 9 and 10 hours,	—	—	—	—	—	—	—	—
10 hours,	16	16	20	15	25.40	25.40	31.74	23.81
More than 10 hours,	15	—	6	2	23.81	—	9.52	3.17
Not stated,	32	32	34	35	50.79	50.79	53.97	55.56
TOTALS,	63	63	63	63	100.00	100.00	100.00	100.00

LIQUORS: MALT, DISTILLED, AND FERMENTED.

Under 7 hours,	—	8	—	1	—	3.67	—	0.46
7 hours,	—	1	—	—	—	0.46	—	—
Between 7 and 8 hours,	—	—	—	—	—	—	—	—
8 hours,	1	9	1	7	0.46	4.13	0.46	3.21
Between 8 and 9 hours,	—	—	—	—	—	—	—	—
9 hours,	2	5	2	5	0.92	2.29	0.92	2.29
Between 9 and 10 hours,	—	—	—	1	—	—	—	0.46
10 hours,	51	47	45	41	23.39	21.56	20.64	18.81
More than 10 hours,	28	2	17	7	12.84	0.92	7.80	3.21
Not stated,	136	146	153	156	62.39	66.97	70.18	71.56
TOTALS,	218	218	218	218	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

LUMBER.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours, . . .	-	6	2	1	-	1.29	0.43	0.21
7 hours, . . .	-	4	1	4	-	0.86	0.21	0.86
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	1	38	5	22	0.21	8.15	1.08	4.72
Between 8 and 9 hours, . . .	-	4	-	3	-	0.86	-	0.64
9 hours, . . .	2	17	3	41	0.43	3.65	0.64	8.80
Between 9 and 10 hours, . . .	-	2	3	9	-	0.43	0.64	1.93
10 hours, . . .	174	113	137	92	37.34	24.25	29.40	19.75
More than 10 hours, . . .	24	1	9	3	5.15	0.21	1.93	0.64
Not stated, . . .	263	281	306	291	56.87	60.30	65.67	62.45
TOTALS, . . .	466	466	466	466	100.00	100.00	100.00	100.00

MACHINES AND MACHINERY.

Under 7 hours, . . .	-	16	1	1	-	2.57	0.16	0.16
7 hours, . . .	-	3	-	1	-	0.48	-	0.16
Between 7 and 8 hours, . . .	-	10	1	4	-	1.61	0.16	0.64
8 hours, . . .	1	33	6	17	0.16	6.11	0.97	2.73
Between 8 and 9 hours, . . .	-	29	4	6	-	4.66	0.64	0.97
9 hours, . . .	8	85	27	38	1.29	13.67	4.34	6.11
Between 9 and 10 hours, . . .	1	14	23	26	0.16	2.25	3.70	4.18
10 hours, . . .	342	182	305	257	54.98	29.26	49.04	41.32
More than 10 hours, . . .	59	6	5	3	9.49	0.97	0.80	0.48
Not stated, . . .	211	239	250	269	33.92	38.42	40.19	43.25
TOTALS, . . .	622	622	622	622	100.00	100.00	100.00	100.00

METALS AND METALLIC GOODS.

Under 7 hours, . . .	-	23	10	12	-	0.84	0.37	0.44
7 hours, . . .	-	10	4	10	-	0.37	0.15	0.37
Between 7 and 8 hours, . . .	-	3	3	1	-	0.11	0.11	0.04
8 hours, . . .	11	124	48	80	0.40	4.54	1.75	2.93
Between 8 and 9 hours, . . .	1	13	4	9	0.04	0.47	0.15	0.33
9 hours, . . .	27	174	68	113	0.99	6.37	2.49	4.13
Between 9 and 10 hours, . . .	5	12	34	30	0.18	0.44	1.24	1.10
10 hours, . . .	875	586	772	660	32.03	21.45	28.26	24.16
More than 10 hours, . . .	150	21	49	35	5.49	0.77	1.79	1.23
Not stated, . . .	1,663	1,766	1,740	1,782	60.87	64.64	63.69	65.22
TOTALS, . . .	2,732	2,732	2,732	2,732	100.00	100.00	100.00	100.00

MIXED TEXTILES.

Under 7 hours, . . .	1	2	-	-	7.69	15.39	-	-
7 hours, . . .	-	1	1	1	-	7.69	7.69	7.69
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	-	2	-	-	-	15.39	-	-
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	1	1	-	1	7.69	7.69	-	7.69
Between 9 and 10 hours, . . .	-	-	-	-	-	-	-	-
10 hours, . . .	6	5	8	7	46.15	38.45	61.54	53.85
More than 10 hours, . . .	3	-	1	1	23.08	-	7.69	7.69
Not stated, . . .	2	2	3	3	15.39	15.39	23.08	23.08
TOTALS, . . .	13	13	13	13	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

MODELS AND PATTERNS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	1.96	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	1	1	-	3.92	1.96	1.96
Between 8 and 9 hours,	-	1	-	-	-	1.96	-	-
9 hours,	1	10	3	3	1.96	19.61	5.88	5.88
Between 9 and 10 hours,	-	2	3	2	-	3.92	5.88	3.92
10 hours,	31	12	20	20	60.79	23.53	39.22	39.22
More than 10 hours,	2	-	-	-	3.92	-	-	-
Not stated,	17	23	24	25	33.33	45.10	47.06	49.02
TOTALS,	51	51	51	51	100.00	100.00	100.00	100.00

MUSICAL INSTRUMENTS AND MATERIALS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	6	1	2	1.08	6.45	1.08	2.15
Between 8 and 9 hours,	-	-	-	1	-	-	-	1.08
9 hours,	2	10	7	5	2.15	10.75	7.52	5.37
Between 9 and 10 hours,	1	1	3	3	1.08	1.08	3.23	3.23
10 hours,	51	30	43	43	54.84	32.26	46.24	46.24
More than 10 hours,	5	-	-	-	5.37	-	-	-
Not stated,	33	46	39	39	35.43	49.46	41.93	41.93
TOTALS,	93	93	93	93	100.00	100.00	100.00	100.00

OILS AND ILLUMINATING FLUIDS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	1	1	-	-	3.57	3.57	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	1	5	2	3	3.57	17.86	7.14	10.72
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	-	-	2	-	-	-	7.14
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	13	9	12	8	46.43	32.14	42.86	28.57
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	13	13	14	15	46.43	46.43	50.00	53.57
TOTALS,	28	28	28	28	100.00	100.00	100.00	100.00

PAINTS, COLORS, AND CRUDE CHEMICALS.

Under 7 hours,	-	-	1	1	-	-	4.55	4.55
7 hours,	-	1	-	-	-	4.55	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	1	-	2	-	4.55	-	9.09
Between 8 and 9 hours,	-	1	-	1	-	4.55	-	4.55
9 hours,	-	-	-	1	-	-	-	4.55
Between 9 and 10 hours,	-	-	1	-	-	-	4.55	-
10 hours,	10	8	8	5	45.45	36.35	36.35	22.71
More than 10 hours,	3	-	-	-	13.64	-	-	-
Not stated,	9	11	12	12	40.91	50.00	54.55	54.55
TOTALS,	22	22	22	22	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

PAPER AND PAPER GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours, . . .	-	1	-	-	-	0.63	-	-
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	1	-	-	-	0.63	-	-
8 hours, . . .	-	14	-	1	-	9.46	-	0.68
Between 8 and 9 hours, . . .	-	4	-	-	-	2.70	-	-
9 hours, . . .	2	18	8	12	1.35	12.16	5.41	8.11
Between 9 and 10 hours, . . .	1	5	16	12	0.68	3.38	10.81	8.11
10 hours, . . .	45	61	57	53	30.40	41.22	38.51	35.81
More than 10 hours, . . .	63	6	20	21	42.57	4.05	13.51	14.19
Not stated, . . .	37	38	47	49	25.00	23.67	31.76	33.10
TOTALS, . . .	148	148	148	148	100.00	100.00	100.00	100.00

PERFUMES, TOILET ARTICLES, ETC.

Under 7 hours, . . .	-	-	-	-	-	-	-	-
7 hours, . . .	-	-	-	-	-	-	-	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	1	1	1	1	10.00	10.00	10.00	10.00
Between 8 and 9 hours, . . .	-	-	-	1	-	-	-	10.00
9 hours, . . .	1	1	1	1	10.00	10.00	10.00	10.00
Between 9 and 10 hours, . . .	1	2	3	2	10.00	20.00	30.00	20.00
10 hours, . . .	2	1	1	1	20.00	10.00	10.00	10.00
More than 10 hours, . . .	1	-	-	-	10.00	-	-	-
Not stated, . . .	4	5	4	4	40.00	50.00	40.00	40.00
TOTALS, . . .	10	10	10	10	100.00	100.00	100.00	100.00

PHOTOGRAPHS AND PHOTOGRAPHIC MATERIALS.

Under 7 hours, . . .	1	5	1	2	0.42	2.08	0.42	0.83
7 hours, . . .	-	3	1	2	-	1.25	0.42	0.83
Between 7 and 8 hours, . . .	-	-	1	-	-	-	0.42	-
8 hours, . . .	8	24	10	19	3.32	9.96	4.15	7.88
Between 8 and 9 hours, . . .	-	-	-	-	-	-	-	-
9 hours, . . .	15	9	16	15	6.22	3.73	6.63	6.22
Between 9 and 10 hours, . . .	-	1	1	3	-	0.42	0.42	1.25
10 hours, . . .	38	21	31	20	15.77	8.71	12.86	8.30
More than 10 hours, . . .	9	-	2	1	3.73	-	0.83	0.42
Not stated, . . .	170	178	175	179	70.54	73.85	73.85	74.27
TOTALS, . . .	241	241	241	241	100.00	100.00	100.00	100.00

POLISHES AND DRESSING.

Under 7 hours, . . .	-	4	-	-	-	6.15	-	-
7 hours, . . .	1	1	1	-	-	1.54	1.54	-
Between 7 and 8 hours, . . .	-	-	-	-	-	-	-	-
8 hours, . . .	2	3	2	3	3.08	4.62	3.08	4.62
Between 8 and 9 hours, . . .	-	1	1	-	-	1.54	1.54	-
9 hours, . . .	1	4	-	2	1.54	6.15	-	3.08
Between 9 and 10 hours, . . .	-	-	-	1	-	-	-	1.54
10 hours, . . .	18	7	14	12	27.69	10.77	21.54	18.46
More than 10 hours, . . .	1	-	-	-	1.54	-	-	-
Not stated, . . .	43	45	47	47	66.15	69.23	72.30	72.30
TOTALS, . . .	65	65	65	65	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

PRINTING, PUBLISHING, AND BOOKBINDING.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	41	3	1	-	5.76	0.42	0.14
7 hours,	-	10	3	3	-	1.40	0.42	0.42
Between 7 and 8 hours,	-	1	3	1	-	0.14	0.42	0.14
8 hours,	14	46	36	27	1.97	6.46	5.06	3.79
Between 8 and 9 hours,	1	2	13	7	0.14	0.28	1.83	0.99
9 hours,	52	118	75	76	7.30	16.57	10.53	10.67
Between 9 and 10 hours,	17	13	46	46	2.39	1.83	6.46	6.46
10 hours,	293	170	200	204	41.15	23.88	28.09	28.65
More than 10 hours,	55	1	4	7	7.86	0.14	0.56	0.99
Not stated,	279	310	329	340	39.19	43.54	46.21	47.75
TOTALS,	712	712	712	712	100.00	100.00	100.00	100.00

PRINT WORKS, DYE WORKS, AND BLEACHERIES.

Under 7 hours,	-	3	2	2	-	3.13	2.08	2.08
7 hours,	-	1	1	1	-	1.04	1.04	1.04
Between 7 and 8 hours,	-	3	-	-	-	3.13	-	-
8 hours,	-	4	3	4	-	4.17	3.13	4.17
Between 8 and 9 hours,	-	9	1	3	-	9.37	1.04	3.13
9 hours,	-	5	2	1	-	5.21	2.08	1.04
Between 9 and 10 hours,	1	1	4	3	1.04	1.04	4.17	3.13
10 hours,	35	24	34	34	36.46	25.00	35.42	35.42
More than 10 hours,	19	2	1	1	19.79	2.08	1.04	1.04
Not stated,	41	44	48	47	42.71	45.83	50.00	48.95
TOTALS,	96	96	96	96	100.00	100.00	100.00	100.00

RAILROAD CONSTRUCTION.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	-	1	-	13.33	-	6.66
Between 8 and 9 hours,	-	1	-	-	-	6.67	-	-
9 hours,	1	7	1	5	6.67	46.67	6.67	33.34
Between 9 and 10 hours,	-	-	3	2	-	-	20.00	13.33
10 hours,	12	4	9	5	80.00	26.66	60.00	33.34
More than 10 hours,	1	-	-	-	6.67	-	-	-
Not stated,	1	1	2	2	6.66	6.67	13.33	13.33
TOTALS,	15	15	15	15	100.00	100.00	100.00	100.00

RUBBER AND ELASTIC GOODS.

Under 7 hours,	-	1	1	-	-	2.44	2.44	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	1	-	1	-	2.44	-	2.44
8 hours,	-	-	2	2	-	-	4.88	4.88
Between 8 and 9 hours,	-	3	-	-	-	7.32	-	-
9 hours,	-	4	2	3	-	9.75	4.88	7.32
Between 9 and 10 hours,	-	1	-	-	-	2.44	-	-
10 hours,	17	13	19	18	41.46	31.71	46.34	43.90
More than 10 hours,	11	-	1	1	26.83	-	2.44	2.44
Not stated,	13	18	16	16	31.71	43.90	39.02	39.02
TOTALS,	41	41	41	41	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

SALT.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	1	-	-	-	20.00	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	-	-	-	-	-	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	1	-	2	1	20.00	-	40.00	20.00
More than 10 hours,	1	-	-	-	20.00	-	-	-
Not stated,	3	4	3	4	60.00	80.00	60.00	80.00
TOTALS,	5	5	5	5	100.00	100.00	100.00	100.00

SCIENTIFIC INSTRUMENTS AND APPLIANCES.

Under 7 hours,	-	2	-	-	-	3.08	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	1	-	-	-	1.54
8 hours,	1	4	2	2	1.54	6.15	3.08	3.08
Between 8 and 9 hours,	-	1	1	1	-	1.54	1.54	1.54
9 hours,	1	7	2	3	1.54	10.77	3.08	4.61
Between 9 and 10 hours,	-	-	1	-	-	-	1.54	-
10 hours,	25	12	17	13	38.46	18.46	26.15	20.00
More than 10 hours,	1	-	-	-	1.54	-	-	-
Not stated,	37	39	42	45	56.92	60.00	64.61	69.23
TOTALS,	65	65	65	65	100.00	100.00	100.00	100.00

SHIPBUILDING.

Under 7 hours,	-	1	3	6	-	0.36	1.08	2.15
7 hours,	-	6	-	5	-	2.15	-	1.79
Between 7 and 8 hours,	-	3	-	1	-	1.08	-	0.36
8 hours,	11	46	8	32	3.94	16.49	2.87	11.47
Between 8 and 9 hours,	-	4	1	4	-	1.43	0.36	1.43
9 hours,	3	13	10	27	1.08	4.66	3.58	9.68
Between 9 and 10 hours,	-	-	5	6	-	-	1.79	2.15
10 hours,	118	48	77	26	42.29	17.20	27.60	9.32
More than 10 hours,	3	-	2	-	1.08	-	0.71	-
Not stated,	144	158	173	172	51.61	56.63	62.01	61.65
TOTALS,	279	279	279	279	100.00	100.00	100.00	100.00

SILK AND SILK GOODS.

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	2	-	-	-	16.67	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	1	-	1	-	8.33	-	8.33
9 hours,	-	1	-	-	-	8.33	-	-
Between 9 and 10 hours,	-	-	1	1	-	-	8.33	8.33
10 hours,	2	2	8	7	16.67	16.67	66.67	58.34
More than 10 hours,	7	2	-	-	58.33	16.67	-	-
Not stated,	3	4	3	3	25.00	33.33	25.00	25.00
TOTALS,	12	12	12	12	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

SPORTING AND ATHLETIC GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	-	1	1	-	-	3.70	3.70
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	-	1	-	7.41	-	3.70
Between 8 and 9 hours,	-	1	-	-	-	3.70	-	-
9 hours,	-	5	1	-	-	18.52	3.70	-
Between 9 and 10 hours,	-	1	-	-	-	3.70	-	-
10 hours,	10	4	7	5	37.04	14.82	25.93	18.52
More than 10 hours,	2	-	-	1	7.41	-	-	3.70
Not stated,	15	14	18	19	55.55	51.85	66.67	70.38
TOTALS,	27	27	27	27	100.00	100.00	100.00	100.00

STONE.

Under 7 hours,	-	6	-	4	-	1.59	-	1.06
7 hours,	-	10	1	5	-	2.64	0.27	1.32
Between 7 and 8 hours,	-	8	-	2	-	2.12	-	0.53
8 hours,	1	33	5	48	0.27	8.73	1.32	12.70
Between 8 and 9 hours,	-	16	-	12	-	4.23	-	3.17
9 hours,	7	91	9	56	1.85	24.07	2.38	14.82
Between 9 and 10 hours,	-	-	41	36	-	-	10.85	9.52
10 hours,	236	70	163	41	62.43	18.52	43.12	10.85
More than 10 hours,	4	-	1	-	1.06	-	0.27	-
Not stated,	130	144	158	174	34.39	38.10	41.79	46.03
TOTALS,	378	378	378	378	100.00	100.00	100.00	100.00

STRAW AND PALM LEAF GOODS.

Under 7 hours,	-	-	1	-	-	-	2.13	-
7 hours,	-	1	1	1	-	2.13	2.13	2.13
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	-	1	-	4.25	-	2.13
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	5	2	2	-	10.64	4.25	4.25
Between 9 and 10 hours,	-	-	1	2	-	-	2.13	4.25
10 hours,	21	12	12	12	44.68	25.53	25.53	25.53
More than 10 hours,	2	-	-	-	4.25	-	-	-
Not stated,	24	27	30	29	51.07	57.45	63.83	61.71
TOTALS,	47	47	47	47	100.00	100.00	100.00	100.00

TALLOW, CANDLES, SOAP, AND GREASE.

Under 7 hours,	-	4	1	1	-	2.58	0.65	0.65
7 hours,	-	-	1	3	-	-	0.65	1.93
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	2	7	3	4	1.29	4.52	1.93	2.58
Between 8 and 9 hours,	-	-	1	1	-	-	0.65	0.65
9 hours,	3	15	7	12	1.93	9.68	4.52	7.74
Between 9 and 10 hours,	-	3	2	2	-	1.93	1.29	1.29
10 hours,	67	45	59	50	43.23	29.03	38.06	32.26
More than 10 hours,	7	-	1	-	4.52	-	0.65	-
Not stated,	76	81	80	82	49.03	52.26	51.60	52.90
TOTALS,	155	155	155	155	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Continued.

TOBACCO, SNUFF, AND CIGARS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	8	1	3	-	2.65	0.33	0.99
7 hours,	-	4	4	1	-	1.33	1.33	0.99
Between 7 and 8 hours,	-	1	2	3	-	0.33	0.66	0.33
8 hours,	20	52	25	33	6.62	17.22	8.28	10.93
Between 8 and 9 hours,	-	1	2	3	-	0.33	0.66	0.99
9 hours,	24	21	35	33	7.95	6.95	11.59	10.93
Between 9 and 10 hours,	1	-	4	1	0.33	-	1.33	0.33
10 hours,	101	32	49	39	33.44	10.60	16.22	12.92
More than 10 hours,	4	1	2	2	1.33	0.33	0.66	0.66
Not stated,	152	182	178	184	50.33	60.26	58.94	60.93
TOTALS,	302	302	302	302	100.00	100.00	100.00	100.00

TOYS AND GAMES (CHILDREN'S).

Under 7 hours,	-	-	-	-	-	-	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	3	-	-	-	20.00	-	-
Between 8 and 9 hours,	-	2	-	2	-	13.33	-	13.33
9 hours,	-	2	-	4	-	13.33	-	26.67
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	8	2	10	4	53.34	13.34	66.67	26.67
More than 10 hours,	2	-	-	-	13.33	-	-	-
Not stated,	5	6	5	5	33.33	40.00	33.33	33.33
TOTALS,	15	15	15	15	100.00	100.00	100.00	100.00

TRUNKS AND VALISES.

Under 7 hours,	-	-	-	1	-	-	-	4.00
7 hours,	-	1	-	1	-	4.00	-	4.00
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	2	1	-	-	8.00	4.00	-
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	2	1	2	2	8.00	4.00	8.00	8.00
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	10	8	9	6	40.00	32.00	36.00	24.00
More than 10 hours,	-	-	-	-	-	-	-	-
Not stated,	13	13	13	15	52.00	52.00	52.00	60.00
TOTALS,	25	25	25	25	100.00	100.00	100.00	100.00

WHIPS, LASHES, AND STOCKS.

Under 7 hours,	-	1	-	1	-	1.67	-	1.67
7 hours,	-	2	-	1	-	3.33	-	-
Between 7 and 8 hours,	-	2	-	-	-	3.33	-	-
8 hours,	-	3	-	3	-	5.00	-	5.00
Between 8 and 9 hours,	-	-	-	-	-	-	-	-
9 hours,	-	9	4	6	-	15.00	6.67	10.00
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	29	12	24	15	48.33	20.00	40.00	25.00
More than 10 hours,	2	-	-	-	3.34	-	-	-
Not stated,	29	31	32	35	48.33	51.67	53.33	58.33
TOTALS,	60	60	60	60	100.00	100.00	100.00	100.00

Longest, Shortest, and Average Daily Working Time, etc. — Concluded.

WOODEN GOODS.

CLASSIFICATION OF DAILY WORKING TIME.	NUMBER				PERCENTAGES			
	MALE ADULTS		ALL PERSONS (AVERAGE)		MALE ADULTS		ALL PERSONS (AVERAGE)	
	Long- est	Short- est	May to No- vember	No- vember to May	Long- est	Short- est	May to No- vember	No- vember to May
Under 7 hours,	-	14	4	4	-	2.62	0.75	0.75
7 hours,	-	2	3	2	-	0.37	0.56	0.37
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	4	32	10	21	0.75	5.99	1.87	3.93
Between 8 and 9 hours,	-	9	1	4	-	1.69	0.19	0.75
9 hours,	7	34	19	33	1.31	6.37	3.56	6.18
Between 9 and 10 hours,	-	3	8	7	-	0.56	1.50	1.31
10 hours,	190	102	139	107	35.58	19.10	26.03	20.04
More than 10 hours,	27	5	7	3	5.06	0.94	1.31	0.56
Not stated,	306	333	343	353	57.30	62.36	64.23	66.11
TOTALS,	534	534	534	534	100.00	100.00	100.00	100.00

WOOLLEN GOODS.

Under 7 hours,	-	5	-	-	-	2.65	-	-
7 hours,	-	5	2	-	-	2.65	1.06	-
Between 7 and 8 hours,	-	10	-	1	-	5.29	-	0.53
8 hours,	-	6	2	5	-	3.17	1.06	2.64
Between 8 and 9 hours,	-	44	2	2	-	23.28	1.06	1.06
9 hours,	-	5	1	1	-	2.65	0.53	0.53
Between 9 and 10 hours,	-	20	-	1	-	10.58	-	0.53
10 hours,	25	27	82	78	13.23	14.28	43.39	41.27
More than 10 hours,	133	24	39	37	70.37	12.70	20.63	19.58
Not stated,	31	45	61	64	16.40	22.75	32.27	33.86
TOTALS,	189	189	189	189	100.00	100.00	100.00	100.00

WORSTED GOODS.

Under 7 hours,	-	9	-	-	-	39.13	-	-
7 hours,	-	-	-	-	-	-	-	-
Between 7 and 8 hours,	-	-	-	-	-	-	-	-
8 hours,	-	-	-	-	-	-	-	-
Between 8 and 9 hours,	-	6	-	-	-	26.09	-	-
9 hours,	-	1	-	-	-	4.35	-	-
Between 9 and 10 hours,	-	-	-	-	-	-	-	-
10 hours,	1	-	15	15	4.35	-	65.22	65.22
More than 10 hours,	17	4	2	1	73.91	17.39	8.69	4.35
Not stated,	5	3	6	7	21.74	13.04	26.09	30.43
TOTALS,	23	23	23	23	100.00	100.00	100.00	100.00

ALL INDUSTRIES.

Under 7 hours,	11	435	99	163	0.05	1.86	0.42	0.69
7 hours,	5	154	66	117	0.02	0.66	0.28	0.50
Between 7 and 8 hours,	1	111	20	32	0.01	0.47	0.09	0.14
8 hours,	142	1,378	432	1,037	0.61	5.88	1.84	4.43
Between 8 and 9 hours,	12	362	79	176	0.05	1.54	0.34	0.75
9 hours,	296	1,824	739	1,593	1.26	7.78	3.16	6.80
Between 9 and 10 hours,	57	142	514	573	0.24	0.61	2.19	2.44
10 hours,	7,398	4,083	6,404	4,421	31.57	17.43	27.33	18.87
More than 10 hours,	1,738	309	518	399	7.42	1.32	2.34	1.70
Not stated,	13,771	14,633	14,530	14,920	58.77	62.45	62.01	63.68
TOTALS,	23,431	23,431	23,431	23,431	100.00	100.00	100.00	100.00

ANALYSIS.

From the presentation for All Industries, at the close of the table, it is seen that 7,398 establishments, or 31.57 per cent of the total number, report 10 hours as the longest daily working time for male adults, while 4,083 establishments, or 17.43 per cent of the total number, report 10 hours as the shortest daily working time. The number failing to report the number of hours constituting the longest working day for male adults is 13,771, and the number failing to make return as to the shortest daily working time for male adults is 14,633. It is probable that in the case of the establishments failing to specify longest and shortest time, 10 hours is the prevailing length of the working day, and they should be included with those making an explicit return to that effect. As a rule, they comprise small establishments carried on by the personal labor of the proprietor, or by the proprietor and a comparatively small number of employés.

There are 11 establishments that report the longest working time for male adults as less than seven hours; five, that it is seven hours; one, between seven and eight hours; 142, eight hours; 12, between eight and nine hours; 296, nine hours; and 57, between nine and ten hours; while 1,738 establishments report that it is more than 10 hours. These last constitute 7.42 per cent of the total number. On the other hand, 435 establishments report the shortest working time for male adults as under seven hours; 154, seven hours; 111, between seven and eight hours; 1,378, eight hours; 362, between eight and nine hours; 1,824, nine hours; and 142, between nine and ten hours; while 309, or 1.32 per cent of the total number of establishments, report the shortest daily working time for male adults as more than 10 hours.

With respect to all persons employed, 548 establishments report the average daily working time as more than 10 hours from May to November, and 399 establishments make the same return for the season from November to May. There are 1,949 establishments that report the average daily working time for all persons as less than 10 hours from May to November, and 3,691 establishments make the same return as to the season from November to May. Of these, 432, or 1.84

per cent of the total number of establishments, report the average working day from May to November to be eight hours in length, and 1,037 establishments, or 4.43 per cent of the total number, report eight hours as the average length of the working day from November to May. In 739 establishments, or 3.16 per cent of the grand total, nine hours constitutes the average length of the working day from May to November, and 1,593 establishments, or 6.80 per cent of the total number, make the same return as to the season from November to May. The facts relating to All Industries are presented in the diagram upon page 507.

With respect to the 14 industries in which, in the Census year, as previously noted, the total product amounted to 74.26 per cent of the entire product of the Commonwealth, the following facts appear :

First, as to male adults. The percentage of the total number of establishments in each industry reporting that the longest daily working time is more than 10 hours is as follows : Boots and Shoes, 3.25 per cent ; Clothing, 4.54 per cent ; Cotton Goods, 80 per cent ; Food Preparations, 14.84 per cent ; Furniture, 3.48 per cent ; Leather, 5.43 per cent ; Machines and Machinery, 9.49 per cent ; Metals and Metallic Goods, 5.49 per cent ; Paper and Paper Goods, 42.57 per cent ; Printing, Publishing, and Bookbinding, 7.86 per cent ; Print Works, Dye Works, and Bleacheries, 19.79 per cent ; Rubber and Elastic Goods, 26.83 per cent ; Woollen Goods, 70.37 per cent ; and Worsted Goods, 73.91 per cent. On the other hand, the percentage reporting that the shortest daily working time is more than 10 hours is as follows : Boots and Shoes, 0.30 per cent ; Clothing, 0.33 ; Cotton Goods, 14.54 ; Food Preparations, 2.22 ; Leather, 0.43 ; Machines and Machinery, 0.97 ; Metals and Metallic Goods, 0.77 ; Paper and Paper Goods, 4.05 ; Printing, Publishing, and Bookbinding, 0.14 per cent ; Print Works, Dye Works, and Bleacheries, 2.08 ; Woollen Goods, 12.70 ; and Worsted Goods, 17.39 per cent. In Furniture and Rubber and Elastic Goods there are no establishments that make this report.

The percentage of the total number of establishments in each industry reporting that the longest daily working time is less than 10 hours is as follows : Boots and Shoes, 1.19

<i>Establishments reporting specified longest and shortest daily working time for male adults, and specified average daily working time for all persons.</i>	
<i>Under nine hours.</i>	
Longest for male adults	171
Shortest for male adults	2,440
Average for all persons May to Nov.	696
Average for all persons Nov. to May.	1,525
<i>Nine hours and between nine and ten hours.</i>	
Longest for male adults	353
Shortest for male adults	1,966
Average for all persons May to Nov.	1,253
Average for all persons Nov. to May.	2,166
<i>Ten hours.</i>	
Longest for male adults	7,398
Shortest for male adults	4,083
Average for all persons May to Nov.	6,404
Average for all persons Nov. to May.	4,421
<i>More than ten hours.</i>	
Longest for male adults	1,738
Shortest for male adults	309
Average for all persons May to Nov.	548
Average for all persons Nov. to May.	399

per cent; Clothing, 3.08 per cent; Cotton Goods, 0.61 per cent; Food Preparations, 2.40 per cent; Furniture, 0.83 per cent; Leather, 0.86 per cent; Machines and Machinery, 1.61 per cent; Metals and Metallic Goods, 1.61 per cent; Paper and Paper Goods, 2.03 per cent; Printing, Publishing, and Bookbinding, 11.80 per cent; and Print Works, Dye Works, and Bleacheries, 1.04 per cent. In Rubber and Elastic Goods, Woollen Goods, and Worsted Goods, no establishments make this return; and it will be noticed that in each of the industries only a comparatively small number of establishments are working under the specified condition.

The percentage of the total number of establishments in each industry reporting that the shortest working day is less than 10 hours in length is as follows: Boots and Shoes, 20.87 per cent; Clothing, 8.33 per cent; Cotton Goods, 63.64 per cent; Food Preparations, 12.91 per cent; Furniture, 21.73 per cent; Leather, 21.32 per cent; Machines and Machinery, 31.35 per cent; Metals and Metallic Goods, 13.14 per cent; Paper and Paper Goods, 29.06 per cent; Printing, Publishing, and Bookbinding, 32.44 per cent; Print Works, Dye Works, and Bleacheries, 27.09 per cent; Rubber and Elastic Goods, 24.39 per cent; Woollen Goods, 50.27 per cent; and Worsted Goods, 69.57 per cent.

Secondly, as to all persons employed. The percentage of the total number of establishments reporting that the average daily working time is more than 10 hours is as follows, the first percentage, in each case, being the percentage from May to November, and the second, that from November to May: Boots and Shoes, 0.55 per cent and 0.59 per cent; Clothing, 1.33 per cent and one per cent; Cotton Goods, 9.09 per cent and 8.48 per cent; Food Preparations, 5.90 per cent and 3.16 per cent; Furniture, 0.33 per cent for the entire year; Leather, 1.14 per cent and 0.57 per cent; Machines and Machinery, 0.80 per cent and 0.48 per cent; Metals and Metallic Goods, 1.79 per cent and 1.28 per cent; Paper and Paper Goods, 13.51 per cent and 14.19 per cent; Printing, Publishing, and Bookbinding, 0.56 per cent and 0.99 per cent; Print Works, Dye Works, and Bleacheries, 1.04 per cent for the entire year; Rubber and Elastic Goods, 2.44 per cent for the entire year;

Woollen Goods, 20.63 per cent and 19.58 per cent; and Worsted Goods, 8.69 per cent and 4.35 per cent.

The percentage of the total number of establishments reporting the average daily working time as less than 10 hours is as follows: Boots and Shoes, 14.28 per cent and 18.01 per cent; Clothing, 11.66 per cent and 13.03 per cent; Cotton Goods, 4.86 per cent and 6.06 per cent; Food Preparations, 4.21 per cent and 9.47 per cent; Furniture, 6.30 per cent and 17.08 per cent; Leather, 7.16 per cent and 10.30 per cent; Machines and Machinery, 9.97 per cent and 14.95 per cent; Metals and Metallic Goods, 6.26 per cent and 9.34 per cent; Paper and Paper Goods, 16.22 per cent and 16.90 per cent; Printing, Publishing, and Bookbinding, 25.14 per cent and 22.61 per cent; Print Works, Dye Works, and Bleacheries, 13.54 per cent and 14.59 per cent; Rubber and Elastic Goods, 12.20 per cent and 14.64 per cent; and Woollen Goods, 3.71 per cent and 5.29 per cent; in Worsted Goods no such establishments appear.

All the establishments not included among those returning either more or less than 10 hours as the longest or shortest average daily working time for male adults, or as the longest or shortest average day for all persons, either made a specified return that they were working on the ten hour basis, or made no return; and, as has been stated, where no return was made, the majority of the establishments may be assumed to be working on the ten hour plan.

The following table presents the average longest daily working time and the average shortest daily working time for male adults, also the average number of hours per day from May to November and from November to May, for all persons employed:

Longest, Shortest, and Average Daily Working Time. Industry Averages.

	INDUSTRIES.	Whole Number of Estab- lishments
1	Agricultural implements,	30
2	Arms and ammunition,	40
3	Artificial teeth and dental work,	489
4	Artisans' tools,	140
5	Awnings, tents, and decorations,	14
6	Boots and shoes,	2,366
7	Boxes (paper and wooden),	215
8	Brick, tiles, and sewer pipe,	114
9	Brooms, brushes, and mops,	72
10	Building,	3,773
11	Burial cases, caskets, coffins, etc.,	113
12	Buttons and dress trimmings,	16
13	Carpetings,	46
14	Carriages and wagons,	1,013
15	Cement, kaolin, lime, and plaster,	16
16	Charcoal and kindlers,	11
17	Chemical preparations (compounded),	23
18	Clocks and watches,	47
19	Clothing,	2,402
20	Concrete walks, paving, etc.,	20
21	Cooking, lighting, and heating apparatus,	65
22	Cordage and twine,	52
23	Corks, bungs, and taps,	4
24	Cotton goods,	165
25	Cotton, woollen, and other textiles,	4
26	Crayons, pencils, crucibles, etc.,	7
27	Drugs and medicines,	916
28	Dyestuffs,	9
29	Earthen, plaster, and stone ware,	22
30	Electrical apparatus and appliances,	40
31	Electroplating,	35
32	Emery and sand paper and cloth, etc.,	13
33	Fancy articles,	18
34	Fertilizers,	17
35	Fine arts and taxidermy,	23
36	Fireworks and matches,	5
37	Flax, hemp, and jute goods,	9
38	Food preparations,	1,711
39	Furniture,	603
40	Gas and residual products,	66
41	Glass,	20
42	Glue, isinglass, and starch,	29
43	Hair work (animal and human),	55
44	Hose: rubber, linen, etc.,	3
45	Hosiery and knit goods,	60
46	Ink, mucilage, and paste,	20
47	Ivory, bone, shell, and horn goods, etc.,	39

Longest, Shortest, and Average Daily Working Time. Industry Averages.

MALE ADULTS				ALL PERSONS (AVERAGE)				
Establishments Reporting Longest Working Time	Average Longest Working Time (Hours)	Establishments Reporting Shortest Working Time	Average Shortest Working Time (Hours)	Establishments Reporting Hours from May to November	Average Hours (May to November)	Establishments Reporting Hours from November to May	Average Hours (November to May)	
16	10.25	13	9.38	14	9.71	14	9.44	1
23	9.97	21	9.15	21	9.50	21	9.36	2
46	10.45	38	7.70	41	8.46	42	8.39	3
84	10.02	76	9.00	63	9.57	67	9.36	4
5	12.80	5	9.20	3	9.67	3	9.33	5
946	10.20	843	9.03	857	9.58	824	9.40	6
144	10.15	134	9.26	132	9.81	127	9.59	7
73	11.55	70	9.74	67	10.49	43	9.28	8
30	10.19	28	8.67	26	9.70	25	9.43	9
1,594	10.02	1,438	9.07	1,430	9.85	1,346	8.94	10
31	9.94	26	9.42	24	9.79	23	9.57	11
11	10.05	10	9.50	11	9.36	11	9.26	12
16	10.63	15	8.65	16	9.69	14	9.00	13
368	10.23	326	9.19	360	9.88	347	9.29	14
12	10.50	12	10.00	12	10.15	12	10.02	15
1	10.00	1	10.00	-	-	-	-	16
15	10.03	15	9.27	12	9.47	12	9.47	17
12	9.96	11	8.41	10	9.08	8	9.53	18
448	10.51	409	9.06	662	9.52	620	9.30	19
14	10.07	11	9.64	10	10.00	7	9.71	20
46	10.15	43	9.10	40	9.92	35	9.61	21
32	10.46	31	8.76	30	9.94	29	9.29	22
3	9.50	3	8.50	3	9.50	3	8.83	23
153	10.57	148	8.34	148	9.96	146	9.96	24
4	10.65	4	8.13	3	10.00	3	10.00	25
7	10.04	6	8.96	6	10.00	6	9.50	26
191	13.29	178	10.89	176	12.03	164	11.97	27
3	10.00	3	9.50	3	9.67	3	9.67	28
14	9.86	13	9.58	12	9.17	12	8.92	29
26	11.03	24	9.39	23	9.65	23	10.13	30
23	9.92	21	9.17	20	9.74	19	9.75	31
11	10.55	11	9.16	9	9.89	9	9.89	32
7	10.29	5	9.20	4	9.50	4	10.50	33
8	10.52	8	9.25	7	10.14	7	10.00	34
2	9.50	2	9.00	3	8.33	2	9.50	35
5	10.00	5	9.80	4	10.00	3	9.67	36
6	10.38	6	8.46	7	9.79	7	9.86	37
617	11.38	583	9.20	552	10.14	536	9.66	38
264	10.18	236	9.20	280	9.82	223	9.46	39
52	12.21	49	10.82	47	11.13	47	11.12	40
10	10.45	10	8.50	9	9.67	9	9.72	41
24	10.44	22	9.39	18	9.83	19	9.42	42
11	9.68	10	8.25	16	9.41	15	9.43	43
3	10.00	2	10.00	2	10.00	2	10.00	44
35	10.33	35	8.76	30	9.83	27	8.94	45
7	10.14	7	8.57	8	9.69	8	9.06	46
29	10.09	28	9.19	27	9.59	27	9.46	47

Longest, Shortest, and Average Daily Working Time. Industry Averages
— Concluded.

	INDUSTRIES.	Whole Number of Estab- lishments
1	Jewelry burnishing and lapidary work,	7
2	Leather,	699
3	Linen,	3
4	Liquors and beverages (not spirituous),	63
5	Liquors: malt, distilled, and fermented,	218
6	Lumber,	466
7	Machines and machinery,	622
8	Metals and metallic goods,	2,732
9	Mixed textiles,	13
10	Models and patterns,	51
11	Musical instruments and materials,	93
12	Oils and illuminating fluids,	28
13	Paints, colors, and crude chemicals,	22
14	Paper and paper goods,	148
15	Perfumes, toilet articles, etc.,	10
16	Photographs and photographic materials,	241
17	Polishes and dressing,	65
18	Printing, publishing, and bookbinding,	712
19	Print works, dye works, and bleacheries,	96
20	Railroad construction,	15
21	Rubber and elastic goods,	41
22	Salt,	5
23	Scientific instruments and appliances,	65
24	Shipbuilding,	279
25	Silk and silk goods,	12
26	Sporting and athletic goods,	27
27	Stone,	378
28	Straw and palm leaf goods,	47
29	Tallow, candles, soap, and grease,	155
30	Tobacco, snuff, and cigars,	302
31	Toys and games (children's),	15
32	Trunks and valises,	25
33	Whips, lashes, and stocks,	60
34	Wooden goods,	534
35	Woollen goods,	189
36	Worsted goods,	23
37	ALL INDUSTRIES,	23,431

The average working day for male adults is less than 10 hours in length in only 19 industries. These are the following, the figures giving the average length of the working day in hours: Arms and Ammunition, 9.97; Burial Cases, Caskets, Coffins, etc., 9.94; Clocks and Watches, 9.96; Corks, Bungs,

Longest, Shortest, and Average Daily Working Time. Industry Averages
— Concluded.

MALE ADULTS				ALL PERSONS (AVERAGE)				
Establishments Reporting Longest Working Time	Average Longest Working Time (Hours)	Establishments Reporting Shortest Working Time	Average Shortest Working Time (Hours)	Establishments Reporting Hours from May to November	Average Hours (May to November)	Establishments Reporting Hours from November to May	Average Hours (November to May)	
3	9.67	2	9.00	2	9.50	2	9.00	1
363	10.15	327	9.32	323	9.85	303	9.68	2
2	10.94	2	7.63	2	10.00	2	10.00	3
31	12.32	31	7.84	29	10.10	28	8.89	4
82	11.16	72	9.14	65	10.41	62	9.83	5
201	10.24	185	9.24	160	9.90	175	9.41	6
411	10.17	383	9.15	372	9.85	353	9.70	7
1,069	10.38	966	9.41	992	9.84	950	9.66	8
11	9.68	11	8.45	10	9.75	10	9.65	9
34	10.07	28	9.10	27	9.78	26	9.79	10
60	10.04	47	9.51	54	9.81	54	9.79	11
15	9.67	15	9.13	14	9.71	13	9.38	12
13	11.00	11	9.41	10	9.55	10	8.75	13
111	11.09	110	9.53	101	10.11	99	10.07	14
6	9.50	5	9.20	6	9.25	5	9.08	15
71	9.94	63	8.52	63	9.29	62	8.93	16
22	9.78	20	8.33	18	9.53	18	9.53	17
433	10.29	402	8.86	383	9.45	372	9.56	18
55	10.29	52	9.20	48	9.53	49	9.34	19
14	10.00	14	9.11	13	9.80	13	9.39	20
28	10.47	23	9.30	25	9.57	25	9.63	21
2	11.00	1	6.00	2	10.00	1	10.00	22
28	9.91	26	9.06	23	9.66	20	9.45	23
135	9.90	121	8.84	106	9.62	107	8.60	24
9	10.30	8	9.16	9	9.97	9	9.82	25
12	10.27	13	9.17	9	8.94	8	8.98	26
248	9.99	234	8.85	220	9.81	204	8.89	27
23	10.30	20	9.40	17	9.38	18	9.56	28
79	10.32	74	9.32	75	9.73	73	9.51	29
150	9.61	120	8.49	124	9.14	118	8.95	30
10	10.40	9	8.78	10	10.00	10	9.30	31
12	9.83	12	9.33	12	9.67	10	9.10	32
31	10.16	29	8.97	28	9.86	25	9.36	33
228	10.22	201	9.05	191	9.70	181	9.47	34
158	10.75	146	9.12	128	10.10	125	10.07	35
18	10.63	20	7.73	17	10.07	16	10.06	36
9,660	10.39	8,798	9.15	8,901	9.82	8,511	9.46	37

and Taps, 9.50; Earthen, Plaster, and Stone Ware, 9.86; Electroplating, 9.92; Fine Arts and Taxidermy, 9.50; Hair Work (Animal and Human), 9.68; Jewelry Burnishing and Lapidary Work, 9.67; Mixed Textiles, 9.68; Oils and Illuminating Fluids, 9.67; Perfumes, Toilet Articles, etc., 9.50;

Photographs and Photographic Materials, 9.94 ; Polishes and Dressing, 9.78 ; Scientific Instruments and Appliances, 9.91 ; Shipbuilding, 9.90 ; Stone, 9.99 ; Tobacco, Snuff, and Cigars, 9.61 ; and Trunks and Valises, 9.83.

In Awnings, Tents, and Decorations, the average longest time for male adults is 12.80 hours, and the average shortest time 9.20 hours. In Brick, Tiles, and Sewer Pipe, the average longest time is 11.55 hours, and the shortest, 9.74 hours. In Drugs and Medicines, the range is from 13.29 hours to 10.89 hours. In Electrical Apparatus and Appliances, from 11.03 to 9.39 hours ; in Food Preparations, from 11.38 to 9.20 hours ; in Gas and Residual Products, from 12.21 to 10.82 hours ; in Liquors and Beverages (Not Spirituous), from 12 32 to 7.84 hours ; in Liquors : Malt, Distilled, and Fermented, from 11.16 to 9.14 hours ; in Paints, Colors, and Crude Chemicals, from 11 to 9.41 hours ; in Paper and Paper Goods, from 11.09 to 9.53 hours ; and in Salt, from 11 down to six hours. In no other industries does the average longest time run so high as 11 hours per day.

In all the industries except those we have explicitly referred to, the average longest time is either 10 hours per day, or over 10 but less than 11 hours ; and the average shortest time, either 10 or less than 10 hours. In nearly every case the average longest time is over 10 hours per day, the exceptions being Charcoal and Kindlers, Dyestuffs, Fireworks and Matches, Hose : Rubber, Linen, etc., and Railroad Construction, in which the average longest time is 10 hours only ; and in nearly every case the average shortest daily working time is less than 10 hours, the exceptions being Cement, Kaolin, Lime, and Plaster, Charcoal and Kindlers, and Hose : Rubber, Linen, etc., in which the average shortest time is 10 hours only. In 16 industries the average shortest time is not only less than 10 hours per day but also less than nine hours. These are the following, the averages annexed representing the average shortest time in hours per day : Artificial Teeth and Dental Work, 7.70 ; Brooms, Brushes, and Mops, 8.67 ; Carpetings, 8.65 ; Cordage and Twine, 8.76 ; Cotton Goods, 8.34 ; Cotton, Woollen, and Other Textiles, 8.13 ; Crayons, Pencils, Crucibles, etc., 8.96 ; Flax, Hemp, and Jute Goods, 8.46 ; Glass, 8.50 ; Hosiery and Knit Goods, 8.76 ; Ink, Mucilage,

and Paste, 8.57 ; Linen, 7.63 ; Printing, Publishing, and Book-binding, 8.86 ; Toys and Games (Children's), 8.78 ; Whips, Lashes, and Stocks, 8.97 ; and Worsted Goods, 7.73. For All Industries the average longest time for male adults is 10.39 hours per day, and the average shortest time, 9.15 hours per day.

Industries in which the average daily hours of labor for all persons employed are either 10 or over 10, during the entire year, are Cement, Kaolin, Lime, and Plaster, Cotton, Woollen, and Other Textiles, Drugs and Medicines, Fertilizers, Gas and Residual Products, Hose: Rubber, Linen, etc., Linen, Paper and Paper Goods, Salt, Woollen Goods, and Worsted Goods. In the following industries the average daily working time for all employés is 10 hours or more from May to November, but less than 10 hours from November to May, the averages annexed representing, in each case, the average daily working time for the industry, first, from May to November, and second, from November to May: Brick, Tiles, and Sewer Pipe, 10.49 hours and 9.28 hours ; Concrete Walks, Paving, etc., 10 and 9.71 ; Crayons, Pencils, Crucibles, etc., 10 and 9.50 ; Fireworks and Matches, 10 and 9.67 ; Food Preparations, 10.14 and 9.66 ; Liquors and Beverages (Not Spirituous), 10.10 and 8.89 ; Liquors: Malt, Distilled, and Fermented, 10.41 and 9.83 ; and Toys and Games (Children's), 10 and 9.30 hours. In Artificial Teeth and Dental Work, the average daily working time is 8.46 hours from May to November, and 8.39 hours from November to May.

The other industries reporting a working day averaging less than nine hours in length at either season of the year are the following, the averages representing the length of the working day from May to November and from November to May, respectively: Building, 9.85 hours and 8.94 hours ; Corks, Bungs, and Taps, 9.50 and 8.83 ; Earthen, Plaster, and Stone Ware, 9.17 and 8.92 ; Fine Arts and Taxidermy, 8.33 and 9.50 ; Hosiery and Knit Goods, 9.83 and 8.94 ; Liquors and Beverages (Not Spirituous), 10.10 and 8.89 ; Paints, Colors, and Crude Chemicals, 9.55 and 8.75 ; Photographs and Photographic Materials, 9.29 and 8.93 ; Shipbuilding, 9.62 hours and 8.60 ; Sporting and Athletic Goods, 8.94 and 8.98 ; Stone, 9.81 and 8.89 ; and Tobacco, Snuff, and Cigars, 9.14 and 8.95 hours.

From the foregoing it appears that in two industries only, Artificial Teeth and Dental Work and Sporting and Athletic Goods, the average shortest working time for all persons employed is below nine hours per day throughout the year. These, however, are small industries, the total product being but \$1,731,823 in value in the Census year 1885, or only 0.26 per cent of the aggregate product for the State.

We have now mentioned in detail every industry in which the hours of labor average 10 or over per day or less than nine hours per day, during either specified season of the year. All the other classified industries report less than ten, but more than nine hours, as the average length of a working day for all persons employed, throughout the year. In Boots and Shoes the average is 9.58 hours from May to November, and 9.40 hours from November to May. The averages in other leading industries are as follows, the first average representing the length of the day in hours from May to November and the second, the length of the day in hours from November to May: Carpetings, 9.69 and 9; Clothing, 9.52 and 9.30; Cotton Goods, 9.96 throughout the year; Furniture, 9.82 and 9.46; Glass, 9.67 and 9.72; Leather, 9.85 and 9.68; Machines and Machinery, 9.85 and 9.70; Metals and Metallic Goods, 9.84 and 9.66; Rubber and Elastic Goods, 9.57 and 9.63; Straw and Palm Leaf Goods, 9.38 and 9.56; and Wooden Goods, 9.70 and 9.47.

In conclusion we note the following:

The influence of the employment of women and minors, while perhaps tending to decrease wages, also tends, under the ten-hour law, to shorten daily working time. The textile industries, in which women and minors predominate, are obliged to conform the hours for all persons to those fixed for women and minors, and the tendency toward uniformity leads to the general adoption of the same hours in all industries.

While 10 hours rules as the length of the normal working day for males in 82.06 per cent of all establishments engaged in manufacturing and mechanical industries, the tendency is toward a shorter day inasmuch as 6.12 per cent of the establishments already run on shorter daily working time, while in only 6.16

per cent is a longer day still in force; and although 7.42 per cent return their longest working day for male adults as more than 10 hours, 2.24 per cent return their longest working time as less than 10 hours. The shortest working time for male adults is less than 10 hours in 18.80 per cent of all establishments, while only 1.32 per cent of all establishments report the shortest working time as more than 10 hours.

The advance toward a partial holiday on Saturday is seen in the fact that while 82.06 per cent of the establishments report the daily working time for males as 10 hours, 20.69 per cent report the daily working time as less than 10 hours for all persons on Saturday.

Of the establishments in which less than 10 hours is the daily working time for males, 552, or 2.36 per cent of all establishments, are running nine hours, and 697, or 2.98 per cent of all establishments, are running eight hours.

PART VII.

WOMEN IN INDUSTRY.

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The employment of women is a subject that has received full consideration in the previous reports of this Bureau. In the first annual report, issued in 1870, the effect of factory life upon women, the condition of working women in Boston, and the result of night work upon women and children were topics for presentation and discussion. In the report for 1871 the question of domestic labor and women's work in Boston was taken up, and in the report for 1872 a second article upon the same subject appeared. The report for 1873 considered the question of the hours of labor for women, and that for 1874 referred to the proposed homes for working women. In the report for 1875 appeared a long article relating to the special effects of certain forms of employment upon female health. In the same volume was a presentation of the condition of workmen's families in Massachusetts, in which the subject of the financial "assistance" furnished by the labor of wives and daughters was fully considered. In the report for 1876, containing statistics drawn from the State Census of 1875, and relating to the income of wage and salary receivers, the earnings of 17,630 women were presented, with cost of living, and other related facts. The ten-hour law for women and minors was passed in 1874, and a consideration of the operation of that law may be found in the report for 1879. In 1880, the report contained the results of an investigation relating to divorces with statistics of the number granted from 1860-1878. The woman who secures a divorce is frequently forced to enter the labor field to gain her own support. As more than two-

thirds of the divorces granted are to women, the connection of this matter with the question of the employment of women will be apparent. In the report for 1883, a historical article relating to early factory labor in New England was mainly devoted to the female factory operatives of Lowell and other manufacturing cities, and made evident the controlling influences that led the women of New England to leave the farm and enter the mill. In the report for 1884, "The Working Girls of Boston" was the title of a special and minute investigation into the physical, sanitary, economic, and moral condition of the working women of Boston. In 1885, the report presented health statistics of female college graduates and compared the results with those shown the previous year for working women. In the report for 1887 the number of women, in all branches of industry, who reported themselves as willing to work but unable to find steady employment during the year 1885, was given.

Although large numbers of women were undoubtedly employed in the various industries in 1855, yet the Census taken in that year, under the head of "Occupation," limits the presentation to facts concerning male persons over 15 years of age. In 1865 some statistics in relation to the occupations of women were presented. The Census and Industrial Statistics of 1875 and 1885, however, gave woman her full and proper prominence in all statistical presentations, and included certain information relating to women alone.

In the present Part, we propose to consider the presence of women in industry from two stand-points: first, as partners and stockholders in manufacturing and mechanical industries; and second, as employés in gainful pursuits in all branches of industry.

WOMEN AS PARTNERS AND STOCKHOLDERS IN MANUFACTURING INDUSTRIES.

The first table, which is by industries, shows the number of male partners, the number of female partners, the number of estates engaged in manufacturing industries as partners, and the total number of partners. In addition are given the respective percentages for the three classes of partners previously specified.

Women as Partners in Manufacturing Industries.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Fe- males	Estates		Males	Fe- males	Estates
Agricultural implements,	31	2	-	33	93.94	6.06	-
Arms and ammunition,	49	-	-	49	100.00	-	-
Artificial teeth and dental work,	524	-	-	524	100.00	-	-
Artisans' tools,	178	3	-	181	98.35	1.65	-
Awnings, tents, and decorations,	22	-	-	22	100.00	-	-
Boots and shoes,	2,992	42	-	3,034	98.62	1.38	-
Boxes (paper and wooden),	268	4	-	272	98.53	1.47	-
Brick, tiles, and sewer pipe,	142	-	-	142	100.00	-	-
Brooms, brushes, and mops,	92	2	-	94	97.87	2.13	-
Building,	4,407	5	-	4,412	99.89	0.11	-
Burial cases, caskets, coffins, etc.,	142	6	-	148	95.95	4.05	-
Buttons and dress trimmings,	18	1	-	19	94.74	5.26	-
Carpetings,	29	13	-	42	69.05	30.95	-
Carriages and wagons,	1,173	1	-	1,174	99.91	0.09	-
Cement, kaolin, lime, and plaster,	21	-	-	21	100.00	-	-
Charcoal and kindlers,	12	-	-	12	100.00	-	-
Chemical preparations (compounded),	23	1	-	24	95.83	4.17	-
Clocks and watches,	58	1	-	59	98.31	1.69	-
Clothing,	1,404	1,402	-	2,806	50.04	49.96	-
Concrete walks, paving, etc.,	24	-	-	24	100.00	-	-
Cooking, lighting, and heating apparatus,	76	-	-	76	100.00	-	-
Cordage and twine,	63	-	-	63	100.00	-	-
Corks, bungs, and taps,	6	-	-	6	100.00	-	-
Cotton goods,	89	8	-	97	91.75	8.25	-
Cotton, woollen, and other textiles,	2	-	-	2	100.00	-	-
Crayons, pencils, crucibles, etc.,	8	-	-	8	100.00	-	-
Drugs and medicines,	1,043	29	4	1,076	96.93	2.70	0.37
Dyestuffs,	9	-	-	9	100.00	-	-
Earthen, plaster, and stone ware,	28	-	-	28	100.00	-	-
Electrical apparatus and appliances,	16	-	-	16	100.00	-	-
Electroplating,	45	-	-	45	100.00	-	-
Emery and sand paper and cloth, etc.,	17	-	-	17	100.00	-	-
Fancy articles,	15	3	-	18	83.33	16.67	-
Fertilizers,	21	-	-	21	100.00	-	-
Fine arts and taxidermy,	21	4	-	25	84.00	16.00	-
Fireworks and matches,	6	-	-	6	100.00	-	-
Flax, hemp, and jute goods,	12	2	-	14	85.71	14.29	-
Food preparations,	2,078	42	1	2,121	97.97	1.98	0.05
Furniture,	805	6	2	813	99.01	0.74	0.25
Gas and residual products,	8	-	-	8	100.00	-	-
Glass,	21	1	-	22	95.45	4.55	-
Glue, isinglass, and starch,	49	1	-	50	98.00	2.00	-
Hair work (animal and human),	31	30	-	61	50.82	49.18	-
Hose: rubber, linen, etc.,	1	-	-	1	100.00	-	-
Hosiery and knit goods,	70	6	-	76	92.11	7.89	-
Ink, mucilage, and paste,	26	-	-	26	100.00	-	-
Ivory, bone, shell, and horn goods, etc.,	59	2	-	61	96.72	3.28	-
Jewelry burnishing and lapidary work,	9	-	-	9	100.00	-	-
Leather,	866	4	2	872	99.31	0.46	0.23
Linen,	5	-	-	5	100.00	-	-

Women as Partners in Manufacturing Industries—Concluded.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Fe- males	Estates		Males	Fe- males	Estates
Liquors and beverages (not spirituous),	77	-	-	77	100.00	-	-
Liquors: malt, distilled, and fermented,	279	2	-	281	99.29	0.71	-
Lumber,	594	5	-	599	99.17	0.83	-
Machines and machinery,	746	10	1	757	98.55	1.32	0.13
Metals and metallic goods,	3,210	26	-	3,236	99.20	0.80	-
Mixed textiles,	11	-	-	11	100.00	-	-
Models and patterns,	56	-	-	56	100.00	-	-
Musical instruments and materials, .	112	-	-	112	100.00	-	-
Oils and illuminating fluids,	35	-	-	35	100.00	-	-
Paints, colors, and crude chemicals, .	33	-	-	33	100.00	-	-
Paper and paper goods,	166	-	-	166	100.00	-	-
Perfumes, toilet articles, etc., . . .	14	1	-	15	93.33	6.67	-
Photographs and photographic materials,	264	4	-	268	98.51	1.49	-
Polishes and dressing,	85	2	-	87	97.70	2.30	-
Printing, publishing, and bookbinding,	914	20	-	934	97.86	2.14	-
Print works, dye works, and bleacheries,	100	7	-	107	93.46	6.54	-
Railroad construction,	7	-	-	7	100.00	-	-
Rubber and elastic goods,	34	5	-	39	87.18	12.82	-
Salt,	5	-	-	5	100.00	-	-
Scientific instruments and appliances, .	78	4	-	82	95.12	4.88	-
Shipbuilding,	350	-	-	350	100.00	-	-
Silk and silk goods,	9	-	-	9	100.00	-	-
Sporting and athletic goods,	36	-	-	36	100.00	-	-
Stone,	525	2	-	527	99.62	0.38	-
Straw and palm leaf goods,	64	10	-	74	86.49	13.51	-
Tallow, candles, soap, and grease, .	204	6	1	211	96.68	2.84	0.48
Tobacco, snuff, and cigars,	340	18	-	358	94.97	5.03	-
Toys and games (children's),	18	1	-	19	94.74	5.26	-
Trunks and valises,	34	-	-	34	100.00	-	-
Whips, lashes, and stocks,	82	2	-	84	97.62	2.38	-
Wooden goods,	660	8	1	669	98.65	1.20	0.15
Woollen goods,	244	5	1	250	97.60	2.00	0.40
Worsted goods,	23	1	-	24	95.83	4.17	-
ALL INDUSTRIES,	26,521	1,760	13	28,294	93.73	6.22	0.05

Considering the line for All Industries we find that the 83 industries, which cover all branches of manufacturing and mechanical work done in the Commonwealth by private firms, are carried on by 28,294 partners, of which 26,521 are males, 1,760 are females, and 13 are estates. Expressed in percentages, 93.73 per cent are males, 6.22 per cent females, and 0.05 per cent are estates. Stated in round numbers, of every 16 partners engaged in manufacturing and mechanical industries in the State, one is a woman.

Woman's business influence as a partner, on the basis of numbers, is indicated by *one-sixteenth*.

In all of the 83 industries the male partners predominate. In 37 industries all the partners are males. This leaves 46 industries in which the female partners have a percentage of representation. These percentages are shown in the following table :

Women as Partners in Manufacturing Industries. PERCENTAGES.

CLASSIFICATION OF PERCENTAGES.	Number of Industries in which Women form the Specified Percentage of Partners	Percentages
Under one per cent,	8	17.39
1 but under 5 per cent,	22	47.83
5 but under 10 per cent,	8	17.39
10 but under 20 per cent,	5	10.87
20 but under 40 per cent,	1	2.17
40 per cent and over,	2	4.35
TOTALS,	46	100.00

We see that in 17.39 per cent of the industries having female partners such partners form less than one per cent of the whole number engaged in the industry; in 47.83 per cent of the industries, more than one but less than five per cent of all the partners; in 17.39 per cent of the industries, five but under ten per cent of all the partners; in 10.87 per cent of the industries, ten but under twenty per cent of all the partners; in 2.17 per cent of the industries, twenty but under forty per cent of all the partners; and in 4.35 per cent of the industries, more than forty per cent of all the partners in the industries considered. The two industries in which the number of female partners exceeds forty per cent are Clothing with 49.96 per cent and Hair Work (Animal and Human) with 49.18 per cent.

The second table, which is also by industries, gives the number of male stockholders, the number of female stockholders, the number of corporations, trustees, etc., owning stock, and the total number of stockholders. Three columns of percentages, for the three classes of stockholders particularized, are also presented.

Women as Stockholders in Manufacturing Industries.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Fe- males	Corpo- rations, trustees, etc.		Males	Fe- males	Corpo- rations, trustees, etc.
Agricultural implements,	56	11	-	67	83.58	16.42	-
Arms and ammunition,	119	26	-	145	82.07	17.93	-
Artificial teeth and dental work,	-	-	-	-	-	-	-
Artisans' tools,	402	221	-	623	64.53	35.47	-
Awnings, tents, and decorations,	-	-	-	-	-	-	-
Boots and shoes,	325	88	3	416	78.13	21.15	0.72
Boxes (paper and wooden),	41	7	-	48	85.42	14.58	-
Brick, tiles, and sewer pipe,	103	44	-	147	70.07	29.93	-
Brooms, brushes, and mops,	49	12	-	61	80.33	19.67	-
Building,	83	22	-	105	79.05	20.95	-
Burial cases, caskets, coffins, etc.,	34	6	-	40	85.00	15.00	-
Buttons and dress trimmings,	75	18	-	93	80.65	19.35	-
Carpetings,	620	317	-	937	66.17	33.83	-
Carriages and wagons,	55	42	-	97	56.70	43.30	-
Cement, kaolin, lime, and plaster,	11	1	-	12	91.67	8.33	-
Charcoal and kindlers,	-	-	-	-	-	-	-
Chemical preparations (compounded),	49	10	-	59	83.05	16.95	-
Clocks and watches,	264	135	-	399	66.17	33.83	-
Clothing,	338	168	-	506	66.80	33.20	-
Concrete walks, paving, etc.,	-	-	-	-	-	-	-
Cooking, lighting, and heating apparatus,	423	101	-	524	80.73	19.27	-
Cordage and twine,	303	84	-	387	78.29	21.71	-
Corks, bunge, and taps,	-	-	-	-	-	-	-
Cotton goods,	9,672	4,593	195	14,460	66.89	31.76	1.35
Cotton, woollen, and other textiles,	270	127	-	397	68.01	31.99	-
Crayons, pencils, crucibles, etc.,	19	5	-	24	79.17	20.83	-
Drugs and medicines,	24	7	1	32	75.00	21.88	3.12
Dyestuffs,	35	16	-	51	68.63	31.37	-
Earthen, plaster, and stone ware,	18	3	-	21	85.71	14.29	-
Electrical apparatus and appliances,	1,388	275	3	1,666	83.31	16.51	0.18
Electroplating,	-	-	-	-	-	-	-
Emery and sand paper and cloth, etc.,	60	3	-	63	95.24	4.76	-
Fancy articles,	22	4	-	26	84.62	15.38	-
Fertilizers,	131	33	-	164	79.88	20.12	-
Fine arts and taxidermy,	-	-	-	-	-	-	-
Fireworks and matches,	120	38	-	158	75.95	24.05	-
Flax, hemp, and jute goods,	15	2	-	17	88.24	11.76	-
Food preparations,	753	95	-	848	88.80	11.20	-
Furniture,	332	74	-	406	81.77	18.23	-
Gas and residual products,	3,552	1,999	143	5,694	62.38	35.11	2.51
Glass,	236	114	42	392	60.20	29.08	10.72
Glue, isinglass, and starch,	25	-	-	25	100.00	-	-
Hair work (animal and human),	-	-	-	-	-	-	-
Hose: rubber, linen, etc.,	26	6	-	32	81.25	18.75	-
Hosiery and knit goods,	319	98	-	417	76.50	23.50	-
Ink, mucilage, and paste,	-	-	-	-	-	-	-
Ivory, bone, shell, and horn goods, etc.,	127	18	-	145	87.59	12.41	-
Jewelry burnishing and lapidary work,	-	-	-	-	-	-	-
Leather,	38	15	-	53	71.70	28.30	-

Women as Stockholders in Manufacturing Industries — Concluded.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Fe- males	Corpo- rations, trustees, etc.		Males	Fe- males	Corpo- rations, trustees, etc.
Linen,	13	11	-	24	54.17	45.83	-
Liquors and beverages (not spirituous),	23	7	-	30	76.67	23.33	-
Liquors: malt, distilled, and fermented,	63	8	24	95	66.32	8.42	25.26
Lumber,	74	8	-	82	90.24	9.76	-
Machines and machinery,	1,530	240	1	1,771	86.39	13.55	0.06
Metals and metallic goods,	2,073	690	3	2,766	74.95	24.94	0.11
Mixed textiles,	32	11	-	43	74.42	25.58	-
Models and patterns,	-	-	-	-	-	-	-
Musical instruments and materials, .	126	41	-	167	75.45	24.55	-
Oils and illuminating fluids,	60	-	-	60	100.00	-	-
Paints, colors, and crude chemicals, .	27	5	-	32	84.38	15.62	-
Paper and paper goods,	878	310	-	1,188	73.91	26.09	-
Perfumes, toilet articles, etc., . . .	2	1	-	3	66.67	33.33	-
Photographs and photographic materials,	13	-	-	13	100.00	-	-
Polishes and dressing,	16	22	-	38	42.11	57.89	-
Printing, publishing, and bookbinding,	1,760	121	7	1,888	93.22	6.41	0.37
Print works, dye works, and bleacheries,	785	412	-	1,197	65.58	34.42	-
Railroad construction,	297	197	-	494	60.12	39.88	-
Rubber and elastic goods,	471	237	-	708	66.53	33.47	-
Salt,	-	-	-	-	-	-	-
Scientific instruments and appliances, .	113	9	2	124	91.13	7.26	1.61
Shipbuilding,	8	-	-	8	100.00	-	-
Silk and silk goods,	146	12	-	158	92.41	7.59	-
Sporting and athletic goods,	68	10	-	78	87.18	12.82	-
Stone,	559	39	-	598	93.48	6.52	-
Straw and palm leaf goods,	13	8	-	21	61.90	38.10	-
Tallow, candles, soap, and grease, .	15	2	-	17	88.24	11.76	-
Tobacco, snuff, and cigars,	26	5	-	31	83.87	16.13	-
Toys and games (children's),	11	-	-	11	100.00	-	-
Trunks and valises,	-	-	-	-	-	-	-
Whips, lashes, and stocks,	50	15	-	65	76.92	23.08	-
Wooden goods,	74	8	-	82	90.24	9.76	-
Woollen goods,	679	258	2	939	72.31	27.48	0.21
Worsted goods,	196	47	-	243	80.66	19.34	-
ALL INDUSTRIES,	30,733	11,572	426	42,731	71.92	27.08	1.00

The whole number of stockholders in the 83 industries is 42,731. Of these, 30,733 are males, 11,572 are females, and 426 are corporations, trustees, etc. Reduced to percentages, 71.92 per cent are males, 27.08 per cent are females, and exactly one per cent are corporations, trustees, etc. For each 3.69 stockholders there is one female stockholder, or, in other words, the proportion of female stockholders is greater than one in four, or more than four times the representation secured by women as regards the total number of partners.

Woman's business influence as a stockholder, on the basis of numbers, in our manufacturing corporations, is more than *one-fourth*.

While a woman's position as a business partner is doubtless nearly always secured by her personal investment of money and skill, in the case of stockholders this is not so likely to be the case. This representation of women among stockholders is due largely to the acquirement of such interest by will, and the income of such property, in perhaps the majority of cases, is used for the support of the widows and children of deceased stockholders. Though those holding this quarter interest may not participate in the actual administration of the business, their influence is conservative, and they are particularly interested in the stability of our manufacturing industries. Some have claimed that female stockholders in factory corporations are peculiarly apt to resist demands for higher wages, and that their influence is exerted in favor of a narrow financial policy. If this is in any degree true, it is perhaps for the reason that their stock, in many cases, is their only source of income, and they consequently fear that increased outlay may correspondingly reduce their dividends.

In 69 of the 83 industries the male stockholders are in excess; in one industry, Polishes and Dressing, the female stockholders predominate; while 13 industries have no corporations and, consequently, no stockholders. In five industries all the stockholders are males. This leaves 65 industries in which female stockholders have more or less influence. This influence is shown, in percentages, in the table which follows:

Women as Stockholders in Manufacturing Industries. PERCENTAGES.

CLASSIFICATION OF PERCENTAGES.	Number of Industries in which Women form the Specified Percentage of Stockholders	Percentages
Under 10 per cent,	9	13.84
10 but under 20 per cent,	22	33.85
20 but under 30 per cent,	18	27.69
30 but under 40 per cent,	13	20.00
40 but under 50 per cent,	2	3.03
50 per cent and over,	1	1.54
TOTALS,	65	100.00

Analyzing this table we find that in 13.84 per cent of the industries having female stockholders such stockholders form less than ten per cent of the whole number of stockholders in the industry; in 33.85 per cent of the industries, ten but less than twenty per cent of all the stockholders; in 27.69 per cent of the industries, twenty but under thirty per cent of all the stockholders; in 20 per cent of the industries, thirty but under forty per cent of all the stockholders. In 3.08 per cent of the industries, forty but under fifty per cent of all the stockholders are women. The two industries included in this class are Carriages and Wagons with 43.30 per cent of its stockholders females, and Linen with 45.83 per cent. In one industry, over fifty per cent of the stockholders are women. This industry is Polishes and Dressing with 57.89 per cent of female stockholders.

The only noticeable instances of the presence of corporations, trustees, etc., as stockholders are shown in Glass with 10.72 per cent, and Liquors: Malt, Distilled, and Fermented with 25.26 per cent of the stock held by corporations, trustees, etc. The indirect influence of women in these stockholding corporations and trusteeships cannot be determined.

In the third table, the two preceding presentations are combined, thus showing the aggregate influence of women as partners and stockholders in manufacturing industries. This table, as did the other two, gives industries, numbers, and percentages.

Women as Partners and Stockholders in Manufacturing Industries.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Females	Corporations, trustees, etc.		Males	Females	Corporations, trustees, etc.
Agricultural implements, . . .	87	13	-	100	87.00	13.00	-
Arms and ammunition, . . .	168	26	-	194	86.60	13.40	-
Artificial teeth and dental work, . .	524	-	-	524	100.00	-	-
Artisans' tools, . . .	580	224	-	804	72.14	27.86	-
Awnings, tents, and decorations, . .	22	-	-	22	100.00	-	-
Boots and shoes, . . .	3,317	130	3	3,450	96.14	3.77	0.09
Boxes (paper and wooden), . . .	309	11	-	320	96.56	3.44	-
Brick, tiles, and sewer pipe, . . .	245	44	-	289	84.78	15.22	-
Brooms, brushes, and mops, . . .	141	14	-	155	90.97	9.03	-
Building, . . .	4,490	27	-	4,517	99.40	0.60	-
Burial cases, caskets, coffins, etc., .	176	12	-	188	93.62	6.38	-

Women as Partners and Stockholders in Manufacturing Industries
— Continued.

INDUSTRIES.	NUMBER				PERCENTAGES		
	Males	Females	Corporations, trustees, etc.	Totals	Males	Females	Corporations, trustees, etc.
Buttons and dress trimmings,	93	19	-	112	83.04	16.96	-
Carpetings,	649	330	-	979	66.29	33.71	-
Carriages and wagons,	1,228	43	-	1,271	96.62	3.38	-
Cement, kaolin, lime, and plaster,	32	1	-	33	96.97	3.03	-
Charcoal and kindlers,	12	-	-	12	100.00	-	-
Chemical preparations (compounded),	72	11	-	83	86.75	13.25	-
Clocks and watches,	322	136	-	458	70.31	29.69	-
Clothing,	1,742	1,570	-	3,312	52.60	47.40	-
Concrete walks, paving, etc.,	24	-	-	24	100.00	-	-
Cooking, lighting, and heating apparatus,	499	101	-	600	83.17	16.83	-
Cordage and twine,	366	84	-	450	81.33	18.67	-
Corks, bungs, and taps,	6	-	-	6	100.00	-	-
Cotton goods,	9,761	4,601	195	14,557	67.05	31.61	1.34
Cotton, woollen, and other textiles,	272	127	-	399	68.17	31.83	-
Crayons, pencils, crucibles, etc.,	27	5	-	32	84.38	15.62	-
Drugs and medicines,	1,067	36	5	1,108	96.30	3.25	0.45
Dyestuffs,	44	16	-	60	73.33	26.67	-
Earthen, plaster, and stone ware,	46	3	-	49	93.88	6.12	-
Electrical apparatus and appliances,	1,404	275	3	1,682	83.47	16.35	0.18
Electroplating,	45	-	-	45	100.00	-	-
Emery and sand paper and cloth, etc.,	77	3	-	80	96.25	3.75	-
Fancy articles,	37	7	-	44	84.09	15.91	-
Fertilizers,	152	33	-	185	82.16	17.84	-
Fine arts and taxidermy,	21	4	-	25	84.00	16.00	-
Fireworks and matches,	126	38	-	164	76.83	23.17	-
Flax, hemp, and jute goods,	27	4	-	31	87.10	12.90	-
Food preparations,	2,831	137	1	2,969	95.35	4.62	0.03
Furniture,	1,137	80	2	1,219	93.27	6.56	0.17
Gas and residual products,	3,558	1,999	143	5,700	62.42	35.07	2.51
Glass,	257	115	42	414	62.08	27.78	10.14
Glue, isinglass, and starch,	74	1	-	75	98.67	1.33	-
Hair work (animal and human),	31	30	-	61	50.82	49.18	-
Hose: rubber, linen, etc.,	27	6	-	33	81.82	18.18	-
Hosiery and knit goods,	389	104	-	493	78.90	21.10	-
Ink, mucilage, and paste,	26	-	-	26	100.00	-	-
Ivory, bone, shell, and horn goods, etc.,	186	20	-	206	90.29	9.71	-
Jewelry burnishing and lapidary work,	9	-	-	9	100.00	-	-
Leather,	904	19	2	925	97.73	2.05	0.22
Linen,	18	11	-	29	62.07	37.93	-
Liquors and beverages (not spirituous),	100	7	-	107	93.46	6.54	-
Liquors: malt, distilled, and fermented,	342	10	24	376	90.96	2.66	6.38
Lumber,	668	13	-	681	98.09	1.91	-
Machines and machinery,	2,276	250	2	2,528	90.03	9.89	0.08
Metals and metallic goods,	5,283	716	3	6,002	88.02	11.93	0.05
Mixed textiles,	43	11	-	54	79.63	20.37	-
Models and patterns,	56	-	-	56	100.00	-	-
Musical instruments and materials,	238	41	-	279	85.30	14.70	-
Oils and illuminating fluids,	95	-	-	95	100.00	-	-

Women as Partners and Stockholders in Manufacturing Industries
— Concluded.

INDUSTRIES.	NUMBER			Totals	PERCENTAGES		
	Males	Fe- males	Corpo- rations, trustees, etc.		Males	Fe- males	Corpo- rations, trustees, etc.
Paints, colors, and crude chemicals, . .	60	5	-	65	92.31	7.69	-
Paper and paper goods,	1,044	310	-	1,354	77.10	22.90	-
Perfumes, toilet articles, etc.,	16	2	-	18	88.89	11.11	-
Photographs and photographic materials,	277	4	-	281	98.59	1.42	-
Polishes and dressing,	101	24	-	125	80.80	19.20	-
Printing, publishing, and bookbinding,	2,674	141	7	2,822	94.75	5.00	0.25
Print works, dye works, and bleacheries,	885	419	-	1,304	67.87	32.13	-
Railroad construction,	304	197	-	501	60.68	39.32	-
Rubber and elastic goods,	505	242	-	747	67.60	32.40	-
Salt,	5	-	-	5	100.00	-	-
Scientific instruments and appliances, .	191	13	2	206	92.72	6.31	0.97
Shipbuilding,	358	-	-	358	100.00	-	-
Silk and silk goods,	155	12	-	167	92.81	7.19	-
Sporting and athletic goods,	104	10	-	114	91.23	8.77	-
Stone,	1,084	41	-	1,125	96.36	3.64	-
Straw and palm leaf goods,	77	18	-	95	81.05	18.95	-
Tallow, candles, soap, and grease, . .	219	8	1	228	96.05	3.51	0.44
Tobacco, snuff, and cigars,	366	23	-	389	94.09	5.91	-
Toys and games (children's),	29	1	-	30	96.67	3.33	-
Trunks and valises,	34	-	-	34	100.00	-	-
Whips, lashes, and stocks,	132	17	-	149	88.59	11.41	-
Wooden goods,	734	16	1	751	97.74	2.13	0.13
Woollen goods,	923	263	3	1,189	77.63	22.12	0.25
Worsted goods,	219	48	-	267	82.02	17.98	-
ALL INDUSTRIES,	57,254	13,332	439	71,025	80.61	18.77	0.62

The whole number of partners and stockholders in the 83 industries is 71,025, and this number represents the direct controlling power over about 400,000 employes. We shall assume that these 71,025 partners and stockholders are *different persons* for we have no means of ascertaining how many persons are both partners and stockholders. Even if the functions of partner and stockholder are, in some cases, united in the same person, this fact would not materially change the results hereinafter analyzed.

Of the 71,025 partners and stockholders in the 83 industries, 57,254 are males, 13,332 are females, and 439 are corporations, trustees, etc. Stated in percentages, 80.61 per cent are males, 18.77 per cent are females, and but 0.62 per cent are corporations, trustees, etc.

There is one female partner or stockholder to each 5.33

partners and stockholders, or, to put it more definitely, the proportion of female partners and stockholders is a little less than one in five. That is, the influence of women as partners in private firms and as stockholders in corporations in our manufacturing and mechanical industries, on the basis of numbers, is a little less than *one-fifth*.

In the aggregate, the males are in excess as partners and stockholders in each of the 83 industries. In 13 industries all the partners and stockholders are males. Consequently, there are 70 industries in which women are represented either as partners or stockholders. This influence is indicated by percentages in the subjoined table.

Women as Partners and Stockholders in Manufacturing Industries.

PERCENTAGES.

CLASSIFICATION OF PERCENTAGES.	Number of Industries in which Women form the Specified Percentages of Partners and Stockholders	Percentages
Under 5 per cent,	17	24.28
5 but under 10 per cent,	13	18.57
10 but under 20 per cent,	21	30.00
20 but under 30 per cent,	9	12.86
30 but under 40 per cent,	8	11.43
40 per cent and over,	2	2.86
TOTALS,	70	100.00

As regards industries, we are now able to state the full influence of women, on the basis of numbers, as partners in private firms and as stockholders in corporations. In 24.28 per cent of the industries having female partners or stockholders, these female partners and stockholders form less than five per cent of the whole number of partners and stockholders in the industry; in 18.57 per cent of the industries, five but less than ten per cent of the whole number of partners and stockholders; in 30 per cent of the industries, ten but under twenty per cent of the whole number of partners and stockholders; in 12.86 per cent of the industries, twenty but under thirty per cent of the whole number of partners and stockholders; in 11.43 per cent of the industries, thirty but under forty per cent of the whole number of partners and stockholders; and

in 2.86 per cent of the industries, more than forty per cent of the whole number of partners and stockholders are women. The two industries comprised in the latter class are Clothing with 47.40 per cent and Hair Work (Animal and Human) with 49.18 per cent.

Woman's strong representation in the clothing industry is due to the large number of dressmakers and milliners included under that industry head. The manufacture of various articles from human hair has always been an industry in which women were largely interested from their peculiar fitness for the business, the goods made being principally used by members of their own sex.

To supply the means for ready comparison we bring into a table, for All Industries, the numbers and percentages for partners, for stockholders, and for partners and stockholders combined, for males, for females, and for corporations, trustees, etc.

ALL INDUSTRIES.

SEX, ETC.	PARTNERS		STOCKHOLDERS		AGGREGATES: PARTNERS AND STOCKHOLDERS	
	Number	Percent- ages	Number	Percent- ages	Number	Percent- ages
Males,	26,521	93.73	30,733	71.92	57,254	80.61
Females,	1,760	6.22	11,572	27.08	13,332	18.77
Corporations, trustees, etc.,	13	0.05	426	1.00	439	0.62
TOTALS,	28,294	100.00	42,731	100.00	71,025	100.00

WOMEN AS EMPLOYÉS IN GAINFUL PURSUITS IN ALL BRANCHES OF INDUSTRY.

Before considering the causes that led to the entrance of women into industry, or the conditions of society which, at present, would seem to indicate that her presence in industry is likely to be permanent, it is necessary, for the proper statistical development of the subject, to bring into comparison all available data which show the absolute and comparative growth of woman as an industrial factor. Such data can only be obtained from a census, it being of little value to state the number of women engaged in industrial pursuits unless opportunity is also offered to compare this number with the total

female population, or with that portion of it sufficiently advanced in years to enter the labor field.

We have previously stated that the Massachusetts Census of 1855 made no mention of the occupations of women. In the Census of 1865 there was a short table giving the number of women employed in each of thirty-two occupations. The whole number of women engaged in the thirty-two occupations was 83,314. In the principal occupations there were 77,487 women employed. These figures supply the only opportunity afforded by the State Censuses, previous to 1875, of comparing the number of women engaged in industrial pursuits at that time and at subsequent periods. We therefore present the aggregates for 1865 in a table which shows, for the same occupations, the numbers engaged therein in 1875 and 1885, respectively. Considering the total female population as 100 per cent, we give the percentages of women employed in each of the twenty occupations considered for each of the three periods of comparison.

Women in Industry. Twenty Occupations — 1865, 1875, and 1885.

OCCUPATIONS.	1865		1875		1885	
	Number	Percent-ages	Number	Percent-ages	Number	Percent-ages
Artists,	65	0.01	171	0.02	537	0.05
Authors,*	10	†-	34	†-	46	0.01
Boarding-house keepers,*	792	0.12	785	0.09	2,283	0.23
Clairvoyants,	11	†-	70	0.01	33	†-
Clerks,*	1,154	0.17	2,801	0.33	9,612	0.95
Domestics,*	27,393	4.12	61,385	7.16	58,569	5.80
Dressmakers,	3,457	0.52	9,861	1.15	13,243	1.31
Hat and cap makers,	228	0.03	411	0.05	328	0.03
Milliners,	2,388	0.36	2,575	0.30	2,269	0.23
Operatives, mill and factory* . .	20,152	3.03	45,685	5.33	57,398	5.69
Operatives, sewing-machine* . .	68	0.01	1,411	0.16	517	0.05
Physicians,	48	0.01	94	0.01	335	0.03
Printers,*	166	0.03	676	0.08	1,257	0.12
Seamstresses,	4,381	0.66	4,917	0.57	6,751	0.67
Shoemakers,*	4,110	0.62	5,724	0.67	14,388	1.43
Storekeepers,*	174	0.03	573	0.07	1,554	0.15
Straw and palm leaf workers,* . .	2,804	0.42	2,191	0.25	3,311	0.33
Tailoresses,	3,855	0.58	4,988	0.58	4,484	0.44
Teachers,	6,050	0.91	8,128	0.95	10,082	1.00
Teachers, music	161	0.02	1,258	0.15	1,772	0.18
Not included above,*	587,534	88.35	703,791	82.07	820,488	81.30
TOTAL FEMALE POPULATION, . .	665,021	100.00	857,529	100.00	1,009,257	100.00

† Less than one one-hundredth of one per cent.

The line "not included above" includes the balance of the female population, of all ages, for each of the three periods considered.

It is necessary for a full understanding of these figures, before comparisons are made, to present certain points of explanation and information concerning the occupations that are marked with an asterisk (*).

In 1865 there were 10 "authoresses;" in 1875, while the number of female authors had increased to 34, there were also 336 women who were classed as "literary persons," being engaged in journalism and other branches of literary work; in 1885 the number of female authors reached 46, and there was a slight increase in the number of "literary persons," the number being 377.

We have no means of ascertaining whether saloon and restaurant keepers were included with the 782 boarding-house keepers reported in 1865. Assuming, arbitrarily, that they were not, we have omitted 253 saloon and restaurant keepers in 1875, and 174 in 1885.

Considering that the term "clerks" was used in 1865 in its broadest sense, we have included accountants, bookkeepers, and saleswomen in the figures for 1875 and 1885.

By "domestics" are meant domestic servants, and only those performing household duties for a stated compensation are included in the figures for 1875 and 1885.

The single word "operatives" was used in 1865, but we have added the qualifying words "mill and factory." The figures include those engaged in the manufacture of all kinds of textiles, buttons, paper, and watches.

The line "sewing-machine operatives" (or operators) is the least indicative of those presented. Such a designation does not show the particular industry in which a person is engaged, and prevents satisfactory comparisons.

We have included under "printers" both compositors and those engaged on press-work.

The term "shoe workers" was used in 1865 but we have changed it to shoemakers. The figures for 1875 include 2,741 "shoe stitchers" and those for 1885 embrace 6,407 coming under the same designation.

The term "storekeepers" used in 1865 was changed to

“merchants” in 1875 and 1885, and in these latter years “agents” are included.

The figures for “straw and palm leaf workers” must relate to factory employes only, for this is an industry in which large numbers of women were employed at home both in 1875 and 1885.

We are now prepared to compare intelligently the figures presented. We see that the twenty occupations considered gave gainful employment, in 1865, to 77,487 persons or 11.65 per cent of the total female population.

In 1875, the female employes in these same occupations numbered 153,738, or 17.93 per cent, and in 1885 amounted to 188,769, or 18.70 per cent of the total female population as determined by the Censuses of those years.

The percentages of increase or decrease in 1875 as compared with 1865, and in 1885 as compared with 1865 and 1875, are best shown in the following table in which such percentages are given for each of the twenty industries, and for all the industries in the aggregate, for the three periods of comparison:

Women in Industry. Twenty Occupations—1865, 1875, 1885.

PERCENTAGES OF INCREASE OR DECREASE.

OCCUPATIONS.	INCREASE (+), OR DECREASE (—), IN —		
	1875 as compared with 1865	1885 as compared with 1865	1885 as compared with 1875
Artists,	+0.01	+0.04	+0.03
Authors,	—	+0.01	+0.01
Boarding-house keepers,	—0.03	+0.11	+0.14
Clairvoyants,	+0.01	—	—0.01
Clerks,	+0.16	+0.78	+0.62
Domestics,	+3.04	+1.68	—1.36
Dressmakers,	+0.63	+0.79	+0.16
Hat and cap makers,	+0.02	=	—0.02
Milliners,	—0.06	—0.13	—0.07
Operatives, mill and factory	+2.30	+2.66	+0.36
Operatives, sewing-machine	+0.15	+0.04	—0.11
Physicians,	=	+0.02	+0.02
Printers,	+0.05	+0.09	+0.04
Seamstresses,	—0.09	+0.01	+0.10
Shoemakers,	+0.05	+0.81	+0.76
Storekeepers,	+0.04	+0.12	+0.08
Straw and palm leaf workers,	—0.17	—0.09	+0.08
Tailoresses,	=	—0.14	—0.14
Teachers,	+0.04	+0.09	+0.05
Teachers, music	+0.13	+0.16	+0.03
THE “TWENTY” OCCUPATIONS,	+6.28	+7.05	+0.77

The dash (-) indicates that the percentages were too small to be appreciable, being less than one one-hundredth of one per cent. The sign of equality (=) means that there was no change in the relative percentages.

The great increases shown in numbers in the preceding table dwindle materially when brought to the test of percentages. The uniformly small percentage variations prove that, in the occupations considered, the increase or decrease of the number of women in industry kept close to the lines of the general increase in the total female population. In only a few instances is the increase sufficiently noticeable to warrant particular mention. We will point out the more prominent. In 1875, the number of domestic servants, as compared with the total female population, was 3.04 per cent greater than in 1865; in 1885, 1.68 per cent greater than in 1865, but 1.36 per cent less than in 1875. Mill and factory operatives gained 2.30 per cent in 1875 as compared with 1865, when compared with the total female population; in 1885 there was a gain of 2.66 per cent as compared with 1865, but only 0.36 per cent as compared with 1875. The percentages for the twenty industries, as a whole, sustain our previous statement that the increase in employment of women in these industries kept regular pace with the general increase of the female population. We see a general gain of 6.28 per cent in 1875 as compared with 1865, and a gain of 7.05 per cent in 1885 as compared with 1865, but the gain in 1885 as compared with 1875, is indicated by the comparatively insignificant percentage of 0.77.

Bearing in mind the basis of comparison, that is, the proportion borne to the total female population by the number of women in each occupation considered, the small percentages of gain are shown most forcibly by the following table which is derived from the preceding percentage table :

PERIODS OF COMPARISON.	INCREASE		DECREASE		No Change, etc.*
	Under One Per Cent	One Per Cent and Over	Under One Per Cent	One Per Cent and Over	
1875 as compared with 1865, . . .	11	2	4	-	3
1885 as compared with 1865, . . .	13	2	3	-	2
1885 as compared with 1875, . . .	14	-	5	1	-

* Includes those occupations where the percentage was less than one one-hundredth of one per cent.

Of the twenty occupations considered, in 1875 as compared with 1865, there were 11 that showed an increase of less than one per cent, 2 an increase of more than one per cent, 4 a decrease of less than one per cent, while 3 showed no material change. In 1885 as compared with 1865, there were 13 in which the increase was less than one per cent, 2 in which it was over one per cent, 3 in which the decrease was under one per cent, and 2 in which there was no change. Similar results appear when 1885 is compared with 1875, for 14 occupations have an increase of less than one per cent, 5 a decrease of less than one per cent, and one a decrease of more than one per cent.

The figures so far used bring out the fact of the presence of women in certain occupations, and the growth both by numbers and percentages. Our presentations so far have been indications of comparative growth. An absolute growth was, of course, to be expected, for the State is constantly increasing in population, and an excess of females over males is shown by each State Census.

In the next table, we present the absolute growth, in 21 branches of occupation, in 1885 over 1875.

*Women in Industry. Absolute Growth in Principal Occupations
— 1875, 1885.*

OCCUPATIONS.	NUMBER		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875	1885		
PROFESSIONAL.				
Music,	1,395	2,065	+670	+48.03
Education,	8,136	10,094	+1,958	+24.07
DOMESTIC SERVICE.				
Boarding and lodging,	1,038	7,328	+6,290	+605.97
Domestic service (private families),	79,207	142,643	+63,436	+80.09
PERSONAL SERVICE.				
Personal service,	4,564	9,788	+5,224	+114.46
TRADE.				
Merchants and dealers,	527	1,357	+830	+157.50
Saleswomen,	1,709	3,828	+2,119	+123.99
Accountants, bookkeepers, clerks, etc.,	1,089	5,784	+4,695	+431.13
MANUFACTURES.				
Boots and shoes,	6,097	14,390	+8,293	+136.02
Boxes (paper and wooden),	619	1,707	+1,088	+175.77
Clocks and watches,	237	1,044	+807	+340.51

Women in Industry. Absolute Growth in Principal Occupations
— 1875, 1885 — Concluded.

OCCUPATIONS.	NUMBER		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875	1885		
MANUFACTURES — Con.				
Clothing,	24,345	27,564	+3,219	+13.22
Cotton goods,	16,554	31,521	+14,967	+90.41
Hosiery and knit goods,	507	2,406	+1,899	+374.56
Metals and metallic goods,	783	1,766	+983	+125.54
Paper and paper goods,	2,506	3,781	+1,275	+50.88
Printing, publishing, and bookbinding,	1,170	2,349	+1,179	+100.77
Rubber and elastic goods,	364	2,147	+1,783	+489.84
Silk and silk goods,	712	1,414	+702	+98.60
Straw and palm leaf goods,	2,191	3,311	+1,120	+51.12
Woollen goods,	4,001	9,150	+5,149	+128.69
TOTALS,	157,751	285,437	+127,686	+80.94

The results from this comparison completely reverse any conclusions as to comparative growth drawn from the previous presentation of twenty occupations for 1865, 1875, and 1885. The reasons for this reversal are not obscure. In the table on page 534, there are 153,738 women accounted for in the twenty occupations for 1875. These formed 84.05 per cent of all the women engaged in gainful pursuits in that year, or 182,906. In the same table, 188,769 women are reported as being employed in these twenty industries in 1885; but this number forms but 62.71 per cent of 300,999, the whole number of women engaged in gainful pursuits in 1885. Besides the 153,738 women engaged in the twenty occupations in 1875, there were 29,168 other women employed in gainful pursuits in that year. But when we consider 1885, we find that besides the 188,769 women engaged in the twenty occupations in that year, there were 112,230 women employed in other gainful pursuits.

Referring now particularly to the last table presented, we find some phenomenal percentages of increase. The number of female music teachers in 1885 had increased 48.03 per cent over 1875, and the number of teachers in public and private schools, 24.07 per cent. The number of women employed in boarding and lodging houses had increased 6,290, or 605.97 per cent, while the number engaged in domestic service in private families had increased 63,436, or 80.09 per cent.

In personal service there was a gain of 114.46 per cent. In trade, the number of women engaged in business as merchants and dealers increased 157.50 per cent; the number of saleswomen 123.99 per cent, and the number of accountants, bookkeepers, clerks, etc., 431.13 per cent. In manufactures the same marked increases are evident.

There are five industries showing a gain in 1885 as compared with 1875 of less than 100 per cent. These are Clothing, 13.22 per cent; Cotton Goods, 90.41 per cent; Paper and Paper Goods, 50.88 per cent; Silk and Silk Goods, 98.60 per cent; and Straw and Palm Leaf Goods, 51.12 per cent. Five other industries show an increase greater than 100 per cent but less than 200 per cent. They are Boots and Shoes, 136.02 per cent; Boxes (Paper and Wooden), 175.77 per cent; Metals and Metallic Goods, 125.54 per cent; Printing, Publishing, and Bookbinding, 100.77 per cent; and Woollen Goods, 128.69 per cent. In Clocks and Watches the gain was 340.51 per cent, in Hosiery and Knit Goods, 374.56 per cent, and in Rubber and Elastic Goods, 489.84 per cent.

In the 21 occupations considered, there were 157,751 women employed in 1875, being 86.25 per cent of the 182,906 women engaged in gainful pursuits in that year. The 285,437 women employed in the same industries in 1885 formed 94.83 per cent of the 300,999 women engaged in gainful pursuits in that year. The absolute increase in 1885 over 1875, in the occupations considered, was 127,686, or an average percentage of 80.94.

The 182,906 women employed in 1875 in all gainful pursuits formed 21.33 per cent of 857,529, the total female population in that year. In 1885, the 300,999 women employed in all branches of industry formed 29.82 per cent of 1,009,257, the total female population. So that, women in industry in 1885 had gained 8.49 per cent over 1875, as compared with the total female population in the two years considered.

Comparing the increase in female population in 1885 over 1875, with the increase in the number of women engaged in gainful pursuits in 1885 over 1875, we find that while the female population increased 17.69 per cent between 1875 and 1885, the number of women engaged in gainful pursuits, during the same time, increased 64.56 per cent.

There is another method of ascertaining both the absolute and comparative increase of employment of women in industry. This method consists in finding the respective numbers of males and females engaged in particular occupations at any period of comparison. The absolute and comparative growth of the number of females as compared with the number of males can, in this way, be ascertained. To distinguish these tables from those preceding, we shall call them the "Sex in Industry" tables. The first presentation is for the 682,301 persons engaged in all kinds of gainful pursuits in the year 1875, of which 499,395, or 73.19 per cent, were males, and 182,906, or 26.81 per cent, were females.

Sex in Industry — 1875. NUMBER AND PERCENTAGES.

OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
GOVERNMENT.	5,953	374	6,327	94.09	5.91
National government,	1,552	105	1,657	93.66	6.34
State government,	433	185	618	70.06	29.94
City and town government,	3,337	84	3,421	97.54	2.46
Army,	388	—	388	100.00	—
Navy,	243	—	243	100.00	—
PROFESSIONAL.	13,108	10,295	23,403	56.01	43.99
Religion,	2,537	17	2,554	99.33	0.67
Law,	1,867	—	1,867	100.00	—
Medicine,	3,173	164	3,337	95.09	4.91
Literature,	757	336	1,093	69.26	30.74
Art,	818	171	989	82.71	17.29
Music,	1,032	1,395	2,427	42.52	57.48
Amusements,	163	68	231	70.56	29.44
Education,	1,267	8,136	9,403	13.47	86.53
Science,	1,494	8	1,502	99.47	0.53
DOMESTIC SERVICE.	8,243	80,245	88,488	9.32	90.68
Boarding and lodging,	5,321	1,038	6,359	83.68	16.32
Domestic service (private families),	2,922	79,207	82,129	3.56	96.44
PERSONAL SERVICE.	3,049	4,564	7,613	40.05	59.95
Personal service,	3,049	4,564	7,613	40.05	59.95
TRADE.	71,640	3,517	75,157	95.32	4.68
Merchants and dealers,	34,099	527	34,626	98.48	1.52
Salesmen and saleswomen,	8,554	1,709	10,263	83.35	16.65
Accountants, bookkeepers, clerks, etc.,	19,560	1,089	20,649	94.73	5.27
Agents, bankers, brokers, etc.,	5,810	49	5,859	99.16	0.84
Messengers, porters, etc.,	3,617	143	3,760	96.20	3.80
TRANSPORTATION.	29,773	5	29,778	99.98	0.02
Carriers on roads,	14,700	—	14,700	100.00	—
Carriers on steam railroads,	7,003	5	7,008	99.93	0.07
Carriers on seas and rivers,	8,070	—	8,070	100.00	—
AGRICULTURE.	74,465	35	74,500	99.95	0.05
Agriculture,	70,911	34	70,945	99.95	0.05
Care of animals, etc.,	3,554	1	3,555	99.97	0.03
THE FISHERIES.	6,654	2	6,656	99.97	0.03
The fisheries,	6,654	2	6,656	99.97	0.03

Sex in Industry — 1875. NUMBER AND PERCENTAGES — Continued.

OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both SEXES	Males	Females
MANUFACTURES.	233,400	83,594	316,994	73.63	26.37
Agricultural implements,	558	—	558	100.00	—
Arms and ammunition,	592	22	614	96.42	3.58
Artificial teeth and dental work,†	—	—	—	—	—
Artisans' tools,	1,144	8	1,152	99.31	0.69
Awnings, tents, and decorations,†	—	—	—	—	—
Boots and shoes,	42,691	6,097	48,788	87.50	12.50
Boxes (paper and wooden),*	1,023	619	1,642	62.30	37.70
Brick, tiles, and sewer pipe,†	1,239	—	1,239	100.00	—
Brooms, brushes, and mops,*	434	70	504	86.11	13.89
Building,	46,476	3	46,479	99.99	0.01
Burial cases, caskets, coffins, etc.,†	67	17	84	79.76	20.24
Buttons and dress trimmings,*	177	326	503	35.19	64.81
Carpetings,	1,592	1,754	3,116	43.71	56.29
Carriages and wagons,	4,295	13	4,216	99.69	0.31
Cement, kaolin, lime, and plaster,†	37	—	37	100.00	—
Charcoal and kindlers,†	9	—	9	100.00	—
Chemical preparations (compounded),*	63	1	64	98.44	1.56
Clocks and watches,	1,110	237	1,347	82.41	17.59
Clothing,*	4,755	24,345	29,100	16.34	83.66
Concrete walks, paving, etc.,†	54	—	54	100.00	—
Cooking, lighting, and heating apparatus,†	164	3	167	98.20	1.80
Cordage and twine,†	585	97	682	85.78	14.22
Corks, bungs, and taps,†	38	4	42	90.48	9.52
Cotton goods,	11,232	16,554	27,806	40.47	59.53
Cotton, woollen, and other textiles,	17,460	15,937	33,397	52.28	47.72
Crayons, pencils, crucibles, etc.,†	16	2	18	88.89	11.11
Drugs and medicines,	61	19	80	76.25	23.75
Dyestuffs,	3	—	3	100.00	—
Earthen, plaster, and stone ware,†	187	1	188	99.47	0.53
Electrical apparatus and appliances,†	—	—	—	—	—
Electroplating,†	—	—	—	—	—
Emery and sand paper and cloth, etc.,†	42	1	43	97.67	2.33
Fancy articles,†	86	75	161	53.42	46.58
Fertilizers,	10	2	12	83.33	16.67
Fine arts and taxidermy,*	46	—	46	100.00	—
Fireworks and matches,†	55	26	81	67.90	32.10
Flax, hemp, and jute goods,	294	150	444	66.22	33.78
Food preparations,*	3,762	192	3,954	95.14	4.86
Furniture,	6,884	513	7,397	93.06	6.94
Gas and residual products,†	341	—	341	100.00	—
Glass,	997	42	949	95.57	4.43
Glue, isinglass, and starch,†	88	1	89	98.88	1.12
Hair work (animal and human),†	95	250	345	27.54	72.46
Hose: rubber, linen, etc.,†	—	—	—	—	—
Hosiery and knit goods,†	511	507	1,018	50.20	49.80
Ink, mucilage, and paste,†	31	6	37	83.78	16.22
Ivory, bone, shell, and horn goods, etc.,†	676	61	737	91.72	8.28
Jewelry burnishing and lapidary work,*	20	3	23	86.96	13.04
Leather,	7,971	190	8,161	97.67	2.33
Linen,	650	644	1,294	50.23	49.77
Liquors and beverages (not spirituous),†	—	—	—	—	—
Liquors: malt, distilled, and fermented,*	483	6	489	98.77	1.23
Lumber,	981	—	981	100.00	—
Machines and machinery,	14,818	94	14,912	99.37	0.63
Metals and metallic goods,*	21,920	783	22,703	96.55	3.45
Mixed textiles,†	—	—	—	—	—
Models and patterns,†	—	—	—	—	—
Musical instruments and materials,	1,772	6	1,778	99.66	0.34
Oils and illuminating fluids,	142	—	142	100.00	—
Paints, colors, and crude chemicals,†	34	2	36	94.44	5.56
Paper and paper goods,	2,435	2,506	4,942	49.29	50.71
Perfumes, toilet articles, etc.,†	22	11	33	66.67	33.33
Photographs and photographic materials,†	537	40	577	93.07	6.93
Polishes and dressing,	46	15	61	75.41	24.59
Printing, publishing, and bookbinding,*	4,743	1,170	5,913	80.21	19.79
Print works, dye works, and bleacheries,*	3,239	511	3,750	86.37	13.63
Railroad construction,	249	—	249	100.00	—
Rubber and elastic goods,	463	364	827	55.99	44.01
Salt,†	—	—	—	—	—
Scientific instruments and appliances,*	246	12	258	95.35	4.65
Shipbuilding,	3,023	—	3,023	100.00	—
Silk and silk goods,	230	712	942	24.42	75.58
Sporting and athletic goods,†	27	82	109	24.77	75.23
Stone,	4,945	—	4,945	100.00	—

Sex in Industry — 1875. NUMBER AND PERCENTAGES — Concluded.

OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
MANUFACTURES — Con.					
Straw and palm leaf goods,†	530	2,191	2,721	19.48	80.52
Tallow, candles, soap, and grease,†	467	9	476	98.11	1.89
Tobacco, snuff, and cigars,	1,084	289	1,373	78.95	21.05
Toys and games (children's),†	98	9	107	91.59	8.41
Trunks and valises,†	214	—	214	100.00	—
Whips, lashes, and stocks,†	75	116	191	39.27	60.73
Wooden goods,*	5,221	159	5,380	97.04	2.96
Woollen goods,	6,258	4,001	10,259	61.00	39.00
Worsted goods,	868	1,714	2,582	33.62	66.38
LABORERS.					
Laborers,	51,954	225	52,179	99.57	0.43
APPRENTICES.					
Apprentices,	1,156	50	1,206	95.85	4.15

RECAPITULATION.

THE STATE, AND CLASSES OF OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
THE STATE.					
	499,395	182,906	682,301	73.19	26.81
Government,	5,953	374	6,327	94.09	5.91
Professional,	13,108	10,295	23,403	56.01	43.99
Domestic service,	8,243	80,245	88,488	9.32	90.68
Personal service,	3,049	4,564	7,613	40.05	59.95
Trade,	71,640	3,517	75,157	95.32	4.68
Transportation,	29,773	5	29,778	99.98	0.02
Agriculture,	74,465	35	74,500	99.95	0.05
The Fisheries,	6,654	2	6,656	99.97	0.03
Manufactures,	233,400	83,594	316,994	73.63	26.37
Laborers,	51,954	225	52,179	99.57	0.43
Apprentices,	1,156	50	1,206	95.85	4.15

As a rule, the sign (†) indicates that the occupation so marked was not separately designated by that name in 1875, the designation being first used in 1885. The occupations marked (*) are those in which changes were made in 1885, either by subtraction or addition. The reader, before making comparisons on individual occupations, should consult the explanations of the changes made in the occupation classification in 1885, which changes prevent absolute comparisons being made for 1875 and 1885 for the occupations affected. These explanations will be found upon pages 349 to 351, *ante*, in Part IV. of this volume which is devoted to "THE GROWTH OF MANUFACTURES."

The second presentation in this series is for the year 1885. It relates to 901,768 persons engaged in all kinds of gainful

pursuits, of which 600,769, or 66.62 per cent, are males, and 300,999, or 33.38 per cent, are females.

Sex in Industry — 1885. NUMBER AND PERCENTAGES.

OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
GOVERNMENT.	9,621	1,311	10,932	88.01	11.99
National government,	2,613	240	2,853	91.59	8.41
State government,	868	618	1,486	58.41	41.59
City and town government,	5,479	453	5,932	92.36	7.64
Army,	254	-	254	100.00	-
Navy,	407	-	407	100.00	-
PROFESSIONAL.	16,555	14,250	30,805	53.74	46.26
Religion,	3,026	408	3,434	88.12	11.88
Law,	2,230	8	2,247	99.64	0.36
Medicine,	3,812	424	4,236	89.99	10.01
Literature,	900	423	1,413	70.06	29.94
Art,	749	543	1,292	57.97	42.03
Music,	1,557	2,065	3,622	42.99	57.01
Amusements,	610	162	772	79.02	20.98
Education,	1,576	10,094	11,670	13.50	86.50
Science,	1,996	123	2,119	94.20	5.80
DOMESTIC SERVICE.	11,560	149,971	161,531	7.16	92.84
Boarding and lodging,	7,648	7,328	14,976	51.07	48.93
Domestic service (private families),	3,912	142,643	146,555	2.67	97.33
PERSONAL SERVICE.	14,282	9,788	24,070	59.34	40.66
Personal service,	14,282	9,788	24,070	59.34	40.66
TRADE.	94,936	11,837	106,773	88.91	11.09
Merchants and dealers,	33,555	1,357	34,912	96.11	3.89
Salesmen and saleswomen,	14,978	3,823	18,806	79.64	20.36
Accountants, bookkeepers, clerks, etc.,	29,108	5,784	34,892	83.42	16.58
Agents, bankers, brokers, etc.,	8,192	197	8,389	97.65	2.35
Messengers, porters, etc.,	9,103	671	9,774	93.13	6.87
TRANSPORTATION.	48,675	143	48,818	99.71	0.29
Carriers on roads,	27,972	28	28,000	99.90	0.10
Carriers on steam railroads,	15,292	103	15,400	99.30	0.70
Carriers on seas and rivers,	5,411	7	5,418	99.87	0.13
AGRICULTURE.	77,257	404	77,661	99.48	0.52
Agriculture,	76,896	395	77,291	99.49	0.51
Care of animals, etc.,	361	9	370	97.57	2.43
THE FISHERIES.	7,973	7	7,980	99.91	0.09
The fisheries,	7,973	7	7,980	99.91	0.09
MANUFACTURES.	281,822	112,762	394,584	71.42	28.58
Agricultural implements,	746	7	753	99.07	0.93
Arms and ammunition,	1,409	183	1,592	88.51	11.49
Artificial teeth and dental work,†	11	-	11	100.00	-
Artisans' tools,	1,468	40	1,508	97.35	2.65
Awnings, tents, and decorations,†	36	19	55	65.45	34.55
Boots and shoes,	48,013	14,390	62,403	76.94	23.06
Boxes (paper and wooden),*	1,723	1,707	3,430	50.23	49.77
Brick, tiles, and sewer pipe,†	2,070	8	2,078	99.61	0.39
Brooms, brushes, and mops,*	482	308	790	61.01	38.99
Building,	48,808	19	48,827	99.96	0.04
Burial cases, caskets, coffins, etc.,†	176	61	237	74.26	25.74
Buttons and dress trimmings,*	288	599	887	32.47	67.53
Carpetings,	1,298	1,591	2,889	44.93	55.07
Carriages and wagons,	5,323	43	5,366	99.20	0.80
Cement, kaolin, lime, and plaster,†	59	-	59	100.00	-
Charcoal and kindlers,†	20	1	21	95.24	4.76
Chemical preparations (compounded),*	223	8	231	96.54	3.46
Clocks and watches,	2,105	1,044	3,149	66.85	33.15

Sex in Industry—1885. NUMBER AND PERCENTAGES—Continued.

OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
MANUFACTURES—Con.					
Clothing,*	5,732	27,564	33,296	17.22	82.78
Concrete walks, paving, etc.,†	135	-	135	100.00	-
Cooking, lighting, and heating apparatus,†	874	23	897	97.44	2.56
Cordage and twine,†	1,101	756	1,857	59.29	40.71
Corks, bungs, and taps,†	51	21	72	70.83	29.17
Cotton goods,	26,844	31,521	58,365	45.99	54.01
Cotton, woollen, and other textiles,	28	8	36	77.78	22.22
Crayons, pencils, crucibles, etc.,†	70	7	77	90.91	9.09
Drugs and medicines,	184	107	291	63.23	36.77
Dyestuffs,	113	-	113	100.00	-
Earthen, plaster, and stone ware,†	215	16	231	93.07	6.93
Electrical apparatus and appliances,†	559	8	567	98.59	1.41
Electroplating,†	214	5	219	97.72	2.28
Emery and sand paper and cloth, etc.,†	117	8	125	93.60	6.40
Fancy articles,†	37	46	83	44.58	55.42
Fertilizers,	265	2	267	99.25	0.75
Fine arts and taxidermy,*	60	14	74	81.08	18.92
Fireworks and matches,†	64	43	107	59.81	40.19
Flax, hemp, and jute goods,	304	205	509	59.72	40.28
Food preparations,*	6,400	738	7,138	89.66	10.34
Furniture,	7,841	606	8,447	92.83	7.17
Gas and residual products,†	941	-	941	100.00	-
Glass,	900	81	981	91.74	8.26
Glue, isinglass, and starch,†	262	11	273	95.97	4.03
Hair work (animal and human),†	79	123	202	39.11	60.89
Hose: rubber, linen, etc.,†	36	12	48	75.00	25.00
Hosiery and knit goods,†	981	2,406	3,387	28.96	71.04
Ink, mucilage, and paste,†	71	35	106	66.98	33.02
Ivory, bone, shell, and horn goods, etc.,†	718	103	821	87.45	12.55
Jewelry burnishing and lapidary work,†	20	1	21	95.24	4.76
Leather,	9,777	149	9,926	98.50	1.50
Linen,	336	462	798	42.11	57.89
Liquors and beverages (not spirituous),†	167	9	176	94.89	5.11
Liquors: malt, distilled, and fermented,*	775	1	776	99.87	0.13
Lumber,	2,020	1	2,021	99.95	0.05
Machines and machinery,	15,658	93	15,751	99.41	0.59
Metals and metallic goods,*	27,755	1,766	29,521	94.02	5.98
Mixed textiles,†	3	45	46	6.52	93.48
Models and patterns,†	782	9	791	98.86	1.14
Musical instruments and materials,	2,966	58	2,964	98.04	1.96
Oils and illuminating fluids,	290	4	294	98.64	1.36
Paints, colors, and crude chemicals,†	122	5	127	96.06	3.94
Paper and paper goods,	4,680	3,781	8,461	55.31	44.69
Perfumes, toilet articles, etc.,†	22	7	29	75.86	24.14
Photographs and photographic materials,†	697	148	845	82.49	17.51
Polishes and dressing,	124	56	180	68.89	31.11
Printing, publishing, and bookbinding,*	6,475	2,349	8,824	73.38	26.62
Print works, dye works, and bleacheries,*	3,230	551	3,781	85.43	14.57
Railroad construction,	813	-	813	100.00	-
Rubber and elastic goods,	3,029	2,147	5,176	58.52	41.48
Salt,†	24	6	30	80.00	20.00
Scientific instruments and appliances,*	586	53	639	91.71	8.29
Shipbuilding,	2,196	6	2,202	99.73	0.27
Silk and silk goods,	554	1,414	1,968	28.15	71.85
Sporting and athletic goods,†	312	72	384	81.25	18.75
Stone,	4,430	2	4,432	99.95	0.05
Straw and palm leaf goods,†	1,388	3,311	4,699	29.54	70.46
Tallow, candles, soap, and grease,†	597	30	627	95.22	4.78
Tobacco, snuff, and cigars,	1,600	561	2,161	74.04	25.96
Toys and games (children's),†	133	29	162	82.10	17.90
Trunks and valises,†	218	6	224	97.32	2.68
Whips, lashes, and stocks,†	387	149	536	72.20	27.80
Wooden goods,*	5,014	124	5,138	97.59	2.41
Woollen goods,	14,108	9,150	23,258	60.66	39.34
Worsted goods,	1,140	1,712	2,852	39.97	60.03
LABORERS.					
Laborers,	32,905	31	32,936	99.91	0.09
	32,905	31	32,936	99.91	0.09
APPRENTICES.					
Apprentices,	5,183	495	5,678	91.28	8.72
	5,183	495	5,678	91.28	8.72

Sex in Industry — 1885. NUMBER AND PERCENTAGES — Concluded.

RECAPITULATION.

THE STATE, AND CLASSES OF OCCUPATIONS.	NUMBER			PERCENTAGES	
	Males	Females	Both Sexes	Males	Females
THE STATE.	600,769	300,999	901,768	66.62	33.38
Government,	9,621	1,311	10,932	88.01	11.99
Professional,	16,555	14,250	30,805	53.74	46.26
Domestic service,	11,560	149,971	161,531	7.16	92.84
Personal service,	14,282	9,788	24,070	59.34	40.66
Trade,	94,936	11,837	106,773	88.91	11.09
Transportation,	48,675	143	48,818	99.71	0.29
Agriculture,	77,257	404	77,661	99.48	0.52
The Fisheries,	7,973	7	7,980	99.91	0.09
Manufactures,	281,822	112,762	394,584	71.42	28.58
Laborers,	32,905	31	32,936	99.91	0.09
Apprentices,	5,183	495	5,678	91.28	8.72

For an explanation of the signs († and *) used in this table, and in the two others headed “Sex in Industry” which follow, reference should be made to page 543, and pages 349 to 351, *ante*.

In order to arrive at the final and conclusive comparisons from the sex in industry tables for 1875 and 1885, it is only necessary to bring together in one table the percentages for females in the respective years, and designate the increase or decrease, in percentages, in 1885 as compared with 1875. This is done below.

Sex in Industry — 1875, 1885. PERCENTAGES. FEMALES.

OCCUPATIONS.	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (—), in 1885
GOVERNMENT.	5.91	11.99	+6.08
National government,	6.34	8.41	+2.07
State government,	29.94	41.59	+11.65
City and town government,	2.46	7.64	+5.18
Army,	—	—	—
Navy,	—	—	—
PROFESSIONAL.	43.99	46.26	+2.27
Religion,	0.67	11.88	+11.21
Law,	—	0.36	+0.36
Medicine,	4.91	10.01	+5.10
Literature,	30.74	29.94	—0.80
Art,	17.29	42.03	+24.74
Music,	57.48	57.01	—0.47
Amusements,	29.44	20.98	—8.46
Education,	86.53	86.50	—0.03
Science,	0.53	5.80	+5.27

Sex in Industry — 1875, 1885. PERCENTAGES. FEMALES — Continued.

OCCUPATIONS.	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (-), in 1885
DOMESTIC SERVICE.	90.68	92.84	+2.16
Boarding and lodging,	16.32	48.93	+32.61
Domestic service (private families),	96.44	97.33	+0.89
PERSONAL SERVICE.	59.95	40.66	-19.29
Personal service,	59.95	40.66	-19.29
TRADE.	4.68	11.09	+6.41
Merchants and dealers,	1.52	3.89	+2.37
Salesmen and saleswomen,	16.65	20.36	+3.71
Accountants, bookkeepers, clerks, etc.,	5.27	16.58	+11.31
Agents, bankers, brokers, etc.,	0.84	2.35	+1.51
Messengers, porters, etc.,	3.80	6.87	+3.07
TRANSPORTATION.	0.02	0.29	+0.27
Carriers on roads,	-	0.10	+0.10
Carriers on steam railroads,	0.07	0.70	+0.63
Carriers on seas and rivers,	-	0.13	+0.13
AGRICULTURE.	0.05	0.52	+0.47
Agriculture,	0.05	0.51	+0.46
Care of animals, etc.,	0.03	2.43	+2.40
THE FISHERIES.	0.03	0.09	+0.06
The fisheries,	0.03	0.09	+0.06
MANUFACTURES.	26.37	28.58	+2.21
Agricultural implements,	-	0.93	+0.93
Arms and ammunition,	3.58	11.49	+7.91
Artificial teeth and dental work,†	-	-	-
Artisans' tools,	0.69	2.65	+1.96
Awnings, tents, and decorations,†	-	34.55	+34.55
Boots and shoes,	12.50	23.06	+10.56
Boxes (paper and wooden),*	37.70	49.77	+12.07
Brick, tiles, and sewer pipe,†	-	0.39	+0.39
Brooms, brushes, and mops,*	13.89	38.99	+25.10
Building,	0.01	0.04	+0.03
Burial cases, caskets, coffins, etc.,†	20.24	25.74	+5.50
Buttons and dress trimmings,*	64.81	67.53	+2.72
Carpetings,	56.29	55.07	-1.22
Carriages and wagons,	0.31	0.80	+0.49
Cement, kaolin, lime, and plaster,†	-	-	-
Charcoal and kindlers,†	-	4.76	+4.76
Chemical preparations (compounded),*	1.56	3.46	+1.90
Clocks and watches,	17.59	33.15	+15.56
Clothing,*	83.66	82.78	-0.88
Concrete walks, paving, etc.,†	-	-	-

Sex in Industry — 1875, 1885. PERCENTAGES. FEMALES — Continued.

OCCUPATIONS.	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (—), in 1885
MANUFACTURES — Con.			
Cooking, lighting, and heating apparatus,†	1.80	2.56	+0.76
Cordage and twine,†	14.22	40.71	+26.49
Corks, bungs, and taps,†	9.52	29.17	+19.65
Cotton goods,	50.53	54.01	—5.52
Cotton, woollen, and other textiles,	47.72	22.22	—25.50
Crayons, pencils, crucibles, etc.,†	11.11	9.09	—2.02
Drugs and medicines,	23.75	36.77	+13.02
Dyestuffs,	—	—	—
Earthen, plaster, and stone ware,†	0.53	6.93	+6.40
Electrical apparatus and appliances,†	—	1.41	+1.41
Electroplating,†	—	2.28	+2.28
Emery and sand paper and cloth, etc.,†	2.33	6.40	+4.07
Fancy articles,†	46.58	55.42	+8.84
Fertilizers,	16.67	0.75	—15.92
Fine arts and taxidermy,*	—	18.92	+18.92
Fireworks and matches,†	32.10	40.19	+8.09
Flax, hemp, and jute goods,	33.78	40.28	+6.50
Food preparations,*	4.86	10.34	+5.48
Furniture,	6.94	7.17	+0.23
Gas and residual products,†	—	—	—
Glass,	4.43	8.26	+3.83
Glue, isinglass, and starch,†	1.12	4.03	+2.91
Hair work (animal and human),†	72.46	60.89	—11.57
Hose: rubber, linen, etc.,†	—	25.00	+25.00
Hosiery and knit goods,†	49.80	71.04	+21.24
Ink, mucilage, and paste,†	16.22	33.02	+16.80
Ivory, bone, shell, and horn goods, etc.,†	8.28	12.55	+4.27
Jewelry burnishing and lapidary work,†	13.04	4.76	—8.28
Leather,	2.33	1.50	—0.83
Linen,	49.77	57.89	+8.12
Liquors and beverages (not spirituous),†	—	5.11	+5.11
Liquors: malt, distilled, and fermented,*	1.23	0.13	—1.10
Lumber,	—	0.05	+0.05
Machines and machinery,	0.63	0.59	—0.04
Metals and metallic goods,*	3.45	5.98	+2.53
Mixed textiles,†	—	93.48	+93.48
Models and patterns,†	—	1.14	+1.14
Musical instruments and materials,	0.34	1.96	+1.62
Oils and illuminating fluids,	—	1.36	+1.36
Paints, colors, and crude chemicals,†	5.56	3.94	—1.62
Paper and paper goods,	50.71	44.69	—6.02
Perfumes, toilet articles, etc.,†	33.33	24.14	—9.19
Photographs and photographic material,†	6.93	17.51	+10.58
Polishes and dressing,	24.59	31.11	+6.52
Printing, publishing, and bookbinding,*	19.79	26.62	+6.83
Print works, dye works, and bleacheries,*	13.63	14.57	+0.94
Railroad construction,	—	—	—
Rubber and elastic goods,	44.01	41.48	—2.53
Salt,†	—	20.00	+20.00

Sex in Industry — 1875, 1885. PERCENTAGES. FEMALES — Concluded.

OCCUPATIONS.	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (-), in 1885
MANUFACTURES — Con.			
Scientific instruments and appliances,*	4.65	8.29	+3.64
Shipbuilding,	-	0.27	+0.27
Silk and silk goods,	75.58	71.85	-3.73
Sporting and athletic goods,†	75.23	18.75	-56.48
Stone,	-	0.05	+0.05
Straw and palm leaf goods,†	80.52	70.46	-10.06
Tallow, candles, soap, and grease,†	1.89	4.78	+2.89
Tobacco, snuff, and cigars,	21.05	25.96	+4.91
Toys and games (children's),†	8.41	17.90	+9.49
Trunks and valises,†	-	2.68	+2.68
Whips, lashes, and stocks,†	60.73	27.80	-32.93
Wooden goods,*	2.96	2.41	-0.55
Woollen goods,	39.00	39.34	+0.34
Worsted goods,	66.38	60.03	-6.35
LABORERS.	0.43	0.09	-0.34
Laborers,	0.43	0.09	-0.34
APPRENTICES.	4.15	8.72	+4.57
Apprentices,	4.15	8.72	+4.57

RECAPITULATION.

THE STATE, AND CLASSES OF OCCUPATIONS.	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (-), in 1885
THE STATE.	26.81	33.38	+6.57
Government,	5.91	11.99	+6.08
Professional,	43.99	46.26	+2.27
Domestic service,	90.68	92.84	+2.16
Personal service,	59.95	40.66	-19.29
Trade,	4.68	11.09	+6.41
Transportation,	0.02	0.29	+0.27
Agriculture,	0.05	0.52	+0.47
The Fisheries,	0.03	0.09	+0.06
Manufactures,	26.37	28.58	+2.21
Laborers,	0.43	0.09	-0.34
Apprentices,	4.15	8.72	+4.57

Examining the recapitulation we discover a material increase in the number of women engaged in gainful pursuits in 1885 as compared with 1875. The percentages are based upon a comparison with the number of men engaged in similar pur-

suits. In 1875, the women formed 26.81 per cent of the whole number of both sexes so engaged. In 1885, this percentage had risen to 33.38 per cent, a distinct gain of 6.57 per cent in ten years in favor of women in industry. Their industrial progress becomes more apparent when its details are examined. Of the 11 classes of occupations, woman gained in nine and lost in but two. If we go farther down in the way of classification and consider divisions of occupations we find that woman's industrial advance is made still plainer. The following table shows the result as regards divisions of occupations :

THE STATE, AND CLASSES OF OCCUPATIONS.	NUMBER OF DIVISIONS SHOWING—		Number of Divisions in each Class
	An Increase in Females	A Decrease in Females	
THE STATE.	78	*25	113
Government,	3	2	5
Professional,	5	4	9
Domestic service,	2	—	2
Personal service,	—	1	1
Trade,	5	—	5
Transportation,	3	—	3
Agriculture,	2	—	2
The Fisheries,	1	—	1
Manufactures,	56	27	83
Laborers,	—	1	1
Apprentices,	1	—	1

* Including 8 in which women are not employed.

Of 113 divisions under the 11 classes, woman has increased her industrial representation in 78, and has lost ground in but 27, there being eight divisions in which women are not employed.

As regards classes, the women show comparative gains in occupations connected with government, professional, and domestic service; also in trade, transportation, agriculture, the fisheries, manufactures, and as apprentices. On the other hand, comparative losses are shown in personal service, and as laborers.

The general gain of 6.57 per cent made by the women indicates an equal loss on the part of the men. This loss, by classes, is shown in the following table :

Sex in Industry—1875, 1885. PERCENTAGES. MALES.

THE STATE, AND CLASSES OF OCCUPATIONS.*	PERCENTAGES		
	1875	1885	Increase (+), or Decrease (-), in 1885
THE STATE.	73.19	66.62	-6.57
Government,	94.09	88.01	-6.08
Professional,	56.01	53.74	-2.27
Domestic service,	9.32	7.16	-2.16
Personal service,	40.05	59.34	+19.29
Trade,	95.32	88.91	-6.41
Transportation,	99.98	99.71	-0.27
Agriculture,	99.95	99.48	-0.47
The Fisheries,	99.97	99.91	-0.06
Manufactures,	73.63	71.42	-2.21
Laborers,	99.57	99.91	+0.34
Apprentices,	95.85	91.28	-4.57

* Mining, a class of occupations, is omitted because women are not employed in any of its divisions. In every other class of gainful pursuits, women are represented in one or more divisions.

Men represented 73.19 per cent of the industrial army in 1875. In 1885 their representation fell to 66.62 per cent, a general loss or displacement of 6.57 per cent. As regards classes, men lost strength in nine and gained in but two. On the basis of divisions of occupations, men lost in 78 divisions, gained in 27 divisions, and had no competition in the eight remaining divisions.

We have seen during the period from 1875 to 1885 that the total female population of the State increased 17.69 per cent, while woman's representation in industry, during the same period, increased 64.56 per cent.

The male population of Massachusetts in 1875 was 794,383. In 1885 it was 932,884, a gain of 138,501, or 17.44 per cent. On the basis of general increase in population the women scored a small gain of 0.25 per cent, the percentage for women being 17.69. The whole number of males engaged in gainful pursuits in the State in 1875 was 499,395. In 1885 their number had increased to 600,769, a gain of 101,374, or 20.30 per cent.

On the basis of general increase in industrial strength the women made a clear gain, in a decade, of 44.26 per cent. The points particularized above may be well presented in tabular form.

YEARS, AND INCREASES.	POPULATION		INDUSTRIAL WORKERS	
	Males	Females	Males	Females
1875,	794,383	857,529	499,395	182,906
1885,	932,884	1,009,257	600,769	300,999
Increases {	Number,	138,501	151,728	101,374
	Percentages,	17.44	17.69	20.30
			64.56	

Comparing the percentage gains in population and in number of industrial workers, we find that the male workers have increased 1.16 times as fast as the male population; the female workers have increased 3.65 times as fast as the female population; and the female workers have increased 3.18 times as fast as the male workers.

We next present a “graphic” table drawn from the “Sex in Industry” table for 1875 and that for 1885. Explanation has already been made of the use of the signs († and *). There are three other signs used in the table which require elucidation. The sign (+) indicates the excess or preponderance of either sex, as the case may be, in each of the 11 classes or the 113 divisions of occupations, for the years 1875 or 1885. The sign (—) indicates a minority representation, while the sign (×) means no representation, either because the sex in question is not employed in the industry, or it may be due to variations in classification in which cases the signs († or *) also appear.

Sex Preponderance in Occupations—1875, 1885.

OCCUPATIONS.	MALES		FEMALES	
	1875	1885	1875	1885
GOVERNMENT.	+	+	—	—
National government,	+	+	—	—
State government,	+	+	—	—
City and town government,	+	+	—	—
Army,	+	+	×	×
Navy,	+	+	×	×
PROFESSIONAL.	+	+	—	—
Religion,	+	+	—	—
Law,	+	+	×	—
Medicine,	+	+	—	—
Literature,	+	+	—	—
Art,	+	+	—	—

Sex Preponderance in Occupations — 1875, 1885 — Continued.

OCCUPATIONS.	MALES		FEMALES	
	1875	1885	1875	1885
PROFESSIONAL — CON.				
Music,	—	—	+	+
Amusements,	+	+	—	—
Education,	—	—	+	+
Science,	+	+	—	—
DOMESTIC SERVICE.				
Boarding and lodging,	+	+	—	—
Domestic service (private families),	—	—	+	+
PERSONAL SERVICE.				
Personal service,	—	+	+	—
TRADE.				
Merchants and dealers,	+	+	—	—
Salesmen and saleswomen,	+	+	—	—
Accountants, bookkeepers, clerks, etc.,	+	+	—	—
Agents, bankers, brokers, etc.,	+	+	—	—
Messengers, porters, etc.,	+	+	—	—
TRANSPORTATION.				
Carriers on roads,	+	+	×	—
Carriers on steam railroads,	+	+	—	—
Carriers on seas and rivers,	+	+	×	—
AGRICULTURE.				
Agriculture,	+	+	—	—
Care of animals, etc.,	+	+	—	—
THE FISHERIES.				
The fisheries,	+	+	—	—
MANUFACTURES.				
Agricultural implements,	+	+	×	—
Arms and ammunition,	+	+	—	—
Artificial teeth and dental work,†	×	+	×	×
Artisans' tools,	+	+	—	—
Awnings, tents, and decorations,†	×	+	×	—
Boots and shoes,	+	+	—	—
Boxes (paper and wooden),*	+	+	—	—
Brick, tiles, and sewer pipe,†	+	+	×	—
Brooms, brushes, and mops,*	+	+	—	—
Building,	+	+	—	—
Burial cases, caskets, coffins, etc.,†	+	+	—	—
Buttons and dress trimmings,*	—	—	+	+
Carpetings,	—	—	+	+
Carriages and wagons,	+	+	—	—
Cement, kaolin, lime, and plaster,†	+	+	×	×
Charcoal and kindlers,†	+	+	×	—
Chemical preparations (compounded),*	+	+	—	—

Sex Preponderance in Occupations — 1875, 1885 — Continued.

OCCUPATIONS.	MALES		FEMALES	
	1875	1885	1875	1885
MANUFACTURES — Con.				
Clocks and watches,	+	+	—	—
Clothing,*	—	—	+	+
Concrete walks, paving, etc.,†	+	+	×	×
Cooking, lighting, and heating apparatus,†	+	+	—	—
Cordage and twine,†	+	+	—	—
Corks, bungs, and taps,†	+	+	—	—
Cotton goods,	—	—	+	+
Cotton, woollen, and other textiles,	+	+	—	—
Crayons, pencils, crucibles, etc.,†	+	+	—	—
Drugs and medicines,	+	+	—	—
Dyestuffs,	+	+	×	×
Earthen, plaster, and stone ware,†	+	+	—	—
Electrical apparatus and appliances,†	×	+	×	—
Electroplating,†	×	+	×	—
Emery and sand paper and cloth, etc.,†	+	+	—	—
Fancy articles,†	+	—	—	+
Fertilizers,	+	+	—	—
Fine arts and taxidermy,*	+	+	×	—
Fireworks and matches,†	+	+	—	—
Flax, hemp, and jute goods,	+	+	—	—
Food preparations,*	+	+	—	—
Furniture,	+	+	—	—
Gas and residual products,†	+	+	×	×
Glass,	+	+	—	—
Glue, isinglass, and starch,†	+	+	—	—
Hair work (animal and human),†	—	—	+	+
Hose: rubber, linen, etc.,†	×	+	×	—
Hosiery and knit goods,†	+	—	—	+
Ink, mucilage, and paste,†	+	+	—	—
Ivory, bone, shell, and horn goods, etc.,†	+	+	—	—
Jewelry burnishing and lapidary work,†	+	+	—	—
Leather,	+	+	—	—
Linen,	+	—	—	+
Liquors and beverages (not spirituous),†	×	+	×	—
Liquors: malt, distilled, and fermented,*	+	+	—	—
Lumber,	+	+	×	—
Machines and machinery,	+	+	—	—
Metals and metallic goods,*	+	+	—	—
Mixed textiles,†	×	—	×	+
Models and patterns,†	×	+	×	—
Musical instruments and materials,	+	+	—	—
Oils and illuminating fluids,	+	+	×	—
Paints, colors, and crude chemicals,†	+	+	—	—
Paper and paper goods,	—	+	+	—
Perfumes, toilet articles, etc.,†	+	+	—	—
Photographs and photographic materials,†	+	+	—	—
Polishes and dressing,	+	+	—	—
Printing, publishing, and bookbinding,*	+	+	—	—
Print works, dye works, and bleacheries,*	+	+	—	—

Sex Preponderance in Occupations — 1875, 1885 — Concluded.

OCCUPATIONS.	MALES		FEMALES	
	1875	1885	1875	1885
MANUFACTURES — Con.				
Railroad construction,	+	+	×	×
Rubber and elastic goods,	+	+	—	—
Salt,†	×	+	×	—
Scientific instruments and appliances,*	+	+	—	—
Shipbuilding,	+	+	×	—
Silk and silk goods,	—	—	+	+
Sporting and athletic goods,†	—	+	+	—
Stone,	+	+	×	—
Straw and palm leaf goods,†	—	—	+	+
Tallow, candles, soap, and grease,†	+	+	—	—
Tobacco, snuff, and cigars,	+	+	—	—
Toys and games (children's),†	+	+	—	—
Trunks and valises,†	+	+	×	—
Whips, lashes, and stocks,†	—	+	+	—
Wooden goods,*	+	+	—	—
Woollen goods,	+	+	—	—
Worsted goods,	—	—	+	+
LABORERS.				
Laborers,	+	+	—	—
APPRENTICES.				
Apprentices,	+	+	—	—

There are nine branches of occupation, in the preceding table, marked with an (×) in the year columns headed 1875, for both males and females. This indicates that these occupations, although included in the classification for 1885, were not comprehended in the classification for 1875, and the persons who were employed in those branches of occupation in 1875 were classified under some other occupation heading. These nine industries are as follows :

<i>Artificial Teeth and Dental Work.</i>	Liquors and Beverages (Not Spirituous).
<i>Awnings, Tents, and Decorations.</i>	Mixed Textiles.
<i>Electrical Apparatus and Appliances.</i>	Models and Patterns.
<i>Electroplating.</i>	Salt.
<i>Hose: Rubber, Linen, etc.</i>	

This is one of the variations in classification which has been previously referred to and attention called to the explanation. All of these branches of occupation appear in the classification

for 1885, and in all but one of them, and that is printed in italics, women were employed in 1885.

In 1875 there were 19 branches of occupation included in the classification in which women were not employed. They were as follows :

<i>Army.</i>	<i>Dyestuffs.</i>
<i>Navy.</i>	Fine Arts and Taxidermy. .
<i>Law.</i>	<i>Gas and Residual Products.</i>
Carriers on Roads.	Lumber.
Carriers on Seas and Rivers.	Oils and Illuminating Fluids.
Agricultural Implements.	<i>Railroad Construction.</i>
Brick, Tiles, and Sewer Pipe.	Shipbuilding.
<i>Cement, Kaolin, Lime, and Plaster.</i>	Stone.
Charcoal and Kindlers.	Trunks and Valises.
<i>Concrete Walks, Paving, etc.</i>	

In 1885 women had gained a representation in 12 of these, leaving seven occupations in which women were not employed in some capacity in 1885. These seven occupations are printed in italics in the preceding text table. To this number should be added *Artificial Teeth and Dental Work*, as previously shown, making eight occupations only, of the entire classification in 1885, in which women were not employed.

In 1875 the women were in a preponderance in 15 occupations, representing in each 50 per cent or more of all the persons engaged or employed therein. These occupations are given in the following table together with the percentage of women engaged or employed in them :

Occupations in which Women were in a Preponderance in 1875; with Percentages.

OCCUPATIONS.	Percent- ages	OCCUPATIONS.	Percent- ages
Music,	57.48	Hair Work (Animal and Human), .	72.46
Education,	86.53	<i>Paper and Paper Goods</i> ,	50.71
Domestic Service (Private Families),	96.44	Silk and Silk Goods,	75.58
<i>Personal Service</i> ,	59.95	<i>Sporting and Athletic Goods</i> , . .	75.23
Buttons and Dress Trimmings, . .	64.81	Straw and Palm Leaf Goods, . .	80.52
Carpetings,	56.29	<i>Whips, Lashes, and Stocks</i> , . .	60.73
Clothing,	83.66	<i>Worsted Goods</i> ,	66.38
Cotton Goods,	59.53		

We present a similar table for 1885, there being 15 occupations in each of which women represented 50 or more per cent of all the persons engaged or employed therein.

Occupations in which Women were in a Preponderance in 1885; with Percentages.

OCCUPATIONS.	Percent-ages	OCCUPATIONS.	Percent-ages
Music,	57.01	<i>Fancy Articles,</i>	55.42
Education,	86.50	Hair Work (Animal and Human), . .	60.89
Domestic Service (Private Families),	97.33	<i>Hosiery and Knit Goods,</i>	71.04
Buttons and Dress Trimmings, . .	67.53	<i>Linen,</i>	57.89
Carpetings,	55.07	<i>Mixed Textiles,</i>	93.48
Clothing,	82.78	Silk and Silk Goods,	71.85
Cotton Goods,	54.01	Straw and Palm Leaf Goods, . .	70.46
		Worsted Goods,	60.03

Of the 15 occupations in which women were in a preponderance in 1875 there were four in which they had lost their majority representation in 1885. These occupations are printed in italics in the "preponderance" table for 1875. On the other hand, there are four occupations in which the women were in a minority in 1875 but gained a majority representation in 1885. These occupations are printed in italics in the "preponderance" table for 1885.

We next show the percentages of representation of women by classes of occupations for the year 1875. The 11 classes of occupations contain 113 branches or divisions, and the percentage presentation covers the divisions in detail.

Women in Industry—1875. PERCENTAGES OF REPRESENTATION.

CLASSES OF OCCUPATIONS.	PERCENTAGES							New Indus- tries	Women not Em- ployed	Number of Divi- sions in each Class
	Under 1	1 but under 5	5 but under 10	10 but under 20	20 but under 50	50 but under 75	75 and Over			
Government,	-	1	1	-	1	-	-	-	2	5
Professional,	2	1	-	1	2	1	1	-	1	9
Domestic service,	-	-	-	1	-	-	1	-	-	2
Personal service,	-	-	-	-	-	1	-	-	-	1
Trade,	1	2	1	1	-	-	-	-	-	5
Transportation,	1	-	-	-	-	-	-	-	2	3
Agriculture,	2	-	-	-	-	-	-	-	-	2
The Fisheries,	1	-	-	-	-	-	-	-	-	1
Manufactures,	6	13	6	10	14	7	4	9	14	83
Laborers,	1	-	-	-	-	-	-	-	-	1
Apprentices,	-	1	-	-	-	-	-	-	-	1
TOTALS,	14	18	8	13	17	9	11	9	19	113

It will be noted that 9 divisions of occupations did not appear in the classification for 1875, and are given in this table

under the heading of "New Industries." They were all in the "Manufactures" class of occupations.

We present a similar table giving the percentages of representation for 1885.

Women in Industry—1885. PERCENTAGES OF REPRESENTATION.

CLASSES OF OCCUPATIONS.	PERCENTAGES							Women not Em- ployed	Number of Divi- sions in each Class
	Under 1	1 but under 5	5 but under 10	10 but under 20	20 but under 50	50 but under 75	75 and Over		
Government,	-	-	2	-	1	-	-	2	5
Professional,	1	-	1	2	3	1	1	-	9
Domestic service,	-	-	-	-	1	-	1	-	2
Personal service,	-	-	-	-	1	-	-	-	1
Trade,	-	2	1	1	1	-	-	-	5
Transportation,	3	-	-	-	-	-	-	-	3
Agriculture,	1	1	-	-	-	-	-	-	2
The Fisheries,	1	-	-	-	-	-	-	-	1
Manufactures,	10	16	8	8	23	10	2	6	83
Laborers,	1	-	-	-	-	-	-	-	1
Apprentices,	-	-	1	-	-	-	-	-	1
TOTALS,	17	19	13	11	30	11	4	8	113

In order to bring the percentages of representation for the two years into direct comparison, we present the following table:

CLASSIFICATION OF PERCENTAGES, ETC.	NUMBER OF DIVISIONS HAVING SPECIFIED PER- CENTAGES OF WOMEN ENGAGED OR EMPLOYED IN -		Increase (+), or Decrease (-), in 1885
	1875	1885	
Under one per cent,	14	17	+3
1 but under 5 per cent,	18	19	+1
5 but under 10 per cent,	8	13	+5
10 but under 20 per cent,	13	11	-2
20 but under 50 per cent,	17	30	+13
50 but under 75 per cent,	9	11	+2
75 per cent and over,	6	4	-2
Women not employed,	19	8	-11
New industries,	9	-	-9
TOTALS,	113	113	-

This table shows in condensed form the presence of women in industry, and her industrial advancement in the decade con-

sidered. In 1875, in 14 divisions of occupation, women formed less than one per cent of the whole number of persons engaged or employed in each division. In 1885, they had a similar representation in 17 divisions, they having made an entrance into new branches of employment as indicated by the line "Women not employed."

We do not deem it necessary to repeat in text form each line of this salient table. The facts are there, and those wishing to consider exact percentages can easily do so by referring to the "Sex in Industry" table for 1875 and that for 1885.

In the preceding tables we have dealt with 11 classes of occupations embracing 113 branches or divisions. To have dealt with more branches or details would have extended the tables too much for general purposes. Under each of the 113 divisions, occupations are subdivided, and the grand aggregate of occupations in detail, as shown in Part 2, Volume I., of the Massachusetts State Census for 1885, amounts to 17,357. Each of this large number of details is a branch of work differing in kind from all others, and requiring particular preparation, special adaptability, technical skill, or a peculiar fitness for the work in hand.

A presentation follows which shows the number of these detailed occupations in which men only are employed, women only are employed, or both sexes are employed, and the total number of such occupations. Besides these points, the total number of occupations in which men are employed and in which women are employed is stated.

The table conforms to the Census form of presentation, 22 classes of occupation being included instead of 11 as used previously in this Part. In the Census, all persons, of whatever age, or whether actually engaged in gainful pursuits or not, are classified under some head, so that the whole population is accounted for in the "Occupations" tables.

NUMBER OF DIFFERENT OCCUPATIONS.

CLASSIFICATION OF OCCUPATIONS.	NUMBER OF OCCUPATIONS IN WHICH —			Whole Number of Occu- pations	NUMBER OF OC- CUPATIONS IN WHICH —	
	Men only are Em- ployed	Women only are Em- ployed	Both Sexes are Em- ployed		Men are Em- ployed	Women are Em- ployed
GOVERNMENT.	247	18	69	334	316	87
National government,	85	1	15	101	100	16
State government,	40	13	29	82	69	42
City and town government,	116	4	25	145	141	29
Army,	3	—	—	3	3	—
Navy,	3	—	—	3	3	—
PROFESSIONAL.	220	29	180	429	400	209
Religion,	37	1	12	50	49	13
Law,	21	1	1	23	22	2
Medicine,	11	2	21	34	32	23
Literature,	3	1	23	27	26	24
Art,	8	3	21	32	29	24
Music,	35	2	26	63	61	28
Amusements,	26	—	8	34	34	8
Education,	41	19	58	118	99	77
Science,	38	—	10	48	48	10
DOMESTIC SERVICE.	39	26	42	107	81	68
Boarding and lodging,	28	19	33	80	61	52
Domestic service (private families),	11	7	9	27	20	16
PERSONAL SERVICE.	180	9	59	248	239	68
Personal service,	180	9	59	248	239	68
TRADE.	3,415	124	778	4,317	4,193	902
Merchants and dealers,	843	6	86	935	929	92
Salesmen and saleswomen,	617	7	97	721	714	104
Accountants, bookkeepers, clerks, etc.,	1,024	90	495	1,609	1,519	585
Agents, bankers, brokers, etc.,	543	9	39	591	582	48
Messengers, porters, etc.,	388	12	61	461	449	73
TRANSPORTATION.	479	—	29	598	598	29
Carriers on roads,	253	—	6	259	259	6
Carriers on steam railroads,	152	—	20	172	172	20
Carriers on seas and rivers,	74	—	3	77	77	3
AGRICULTURE.	59	—	22	81	81	22
Agriculture,	47	—	19	66	66	19
Care of animals, etc.,	12	—	3	15	15	3
THE FISHERIES.	20	—	2	22	22	2
The fisheries,	20	—	2	22	22	2
MANUFACTURES.	6,431	1,023	1,856	9,310	8,287	2,879
Agricultural implements,	86	—	5	91	91	5
Arms and ammunition,	129	10	20	159	149	30
Artificial teeth and dental work,	1	—	—	1	1	—
Artisans' tools,	180	8	13	201	193	21
Awnings, tents, and decorations,	3	—	4	7	7	4
Boots and shoes,	318	68	256	642	574	324
Boxes (paper and wooden),	53	22	29	104	82	51
Brick, tiles, and sewer pipe,	45	1	4	50	49	5
Brooms, brushes, and mops,	23	11	17	51	40	28
Building,	277	2	9	289	286	11

Number of Different Occupations — Continued.

CLASSIFICATION OF OCCUPATIONS.	NUMBER OF OCCUPATIONS IN WHICH —			Whole Number of Occu- pations	NUMBER OF OC- CUPATIONS IN WHICH —	
	Men only are Em- ployed	Women only are Em- ployed	Both Sexes are Em- ployed		Men are Em- ployed	Women are Em- ployed
MANUFACTURES — Con.						
Burial cases, caskets, coffins, etc., . . .	23	3	12	38	35	15
Buttons and dress trimmings, . . .	15	20	17	52	32	37
Carpetings, . . .	98	24	37	159	135	61
Carriages and wagons, . . .	145	3	8	156	153	11
Cement, kaolin, lime, and plaster, . . .	9	—	—	9	9	—
Charcoal and kindlers, . . .	1	—	1	2	2	1
Chemical preparations (compounded), . . .	23	3	2	28	25	5
Clocks and watches, . . .	92	44	56	192	148	100
Clothing, . . .	108	144	149	401	257	293
Concrete walks, paving, etc., . . .	10	—	—	10	10	—
Cooking, lighting, and heating apparatus, . . .	88	4	7	99	95	11
Cordage and twine, . . .	43	28	38	109	81	66
Corks, bungs, and taps, . . .	2	4	3	9	5	7
Cotton goods, . . .	284	37	154	479	442	191
Cotton, woollen, and other textiles, . . .	9	5	1	15	10	6
Crayons, pencils, crucibles, etc., . . .	23	3	3	29	26	8
Drugs and medicines, . . .	25	4	13	42	38	17
Dyestuffs, . . .	14	—	—	14	14	—
Earthen, plaster, and stone ware, . . .	18	1	5	24	23	6
Electrical apparatus and appliances, . . .	61	1	2	64	63	3
Electroplating, . . .	13	1	1	15	14	2
Emery and sand paper and cloth, etc., . . .	24	2	1	27	25	3
Fancy articles, . . .	8	6	4	18	12	10
Fertilizers, . . .	14	—	1	15	15	1
Fine arts and taxidermy, . . .	5	3	1	9	6	4
Fireworks and matches, . . .	18	2	3	23	21	5
Flax, hemp, and jute goods, . . .	50	10	20	80	70	30
Food preparations, . . .	265	29	55	349	320	84
Furniture, . . .	244	29	37	310	281	66
Gas and residual products, . . .	35	—	—	35	35	—
Glass, . . .	44	8	17	69	61	25
Glue, isinglass, and starch, . . .	15	2	4	21	19	6
Hair work (animal and human), . . .	9	4	9	22	18	13
Hose: rubber, linen, etc., . . .	6	2	3	11	9	5
Hosiery and knit goods, . . .	50	65	41	156	91	106
Ink, mucilage, and paste, . . .	12	5	4	21	16	9
Ivory, bone, shell, and horn goods, . . .	43	10	13	66	56	23
Jewelry burnishing and lapidary work, . . .	4	—	1	5	5	1
Leather, . . .	168	10	19	197	187	29
Linen, . . .	44	13	16	73	60	29
Liquors and beverages (not spirituous), . . .	14	1	3	18	17	4
Liquors: malt, distilled, and fermented, . . .	40	—	1	41	41	1
Lumber, . . .	81	—	1	82	82	1
Machines and machinery, . . .	391	6	18	415	409	24
Metals and metallic goods, . . .	737	53	134	924	871	187
Mixed textiles, . . .	1	1	2	4	3	3
Models and patterns, . . .	55	3	3	61	58	6
Musical instruments and materials, . . .	182	5	20	207	202	25
Oils and illuminating fluids, . . .	30	1	—	31	30	1
Paints, colors, and crude chemicals, . . .	20	1	2	23	22	3
Paper and paper goods, . . .	132	31	64	227	196	95
Perfumes, toilet articles, etc., . . .	8	2	2	12	10	4
Photographs and photographic materials, . . .	5	1	6	12	11	7
Polishes and dressing, . . .	28	4	3	35	31	7
Printing, publishing, and bookbinding, . . .	123	31	72	226	195	103
Print works, dye works, and bleacheries, . . .	207	34	62	303	269	96
Railroad construction, . . .	58	—	—	58	58	—
Rubber and elastic goods, . . .	100	41	46	187	146	87
Salt, . . .	7	3	1	11	8	4
Scientific instruments and appliances, . . .	101	9	13	123	114	22
Shipbuilding, . . .	51	—	2	53	53	2
Silk and silk goods, . . .	25	32	24	81	49	56
Sporting and athletic goods, . . .	47	7	4	58	51	11
Stone, . . .	67	—	1	68	68	1
Straw and palm leaf goods, . . .	48	15	34	97	82	49
Tallow, candles, soap, and grease, . . .	26	—	6	32	32	6
Tobacco, snuff, and cigars, . . .	19	12	11	42	30	23
Toys and games (children's), . . .	15	3	3	21	18	6
Trunks and valises, . . .	13	2	3	18	16	5
Whips, lashes, and stocks, . . .	51	7	6	64	57	13

Number of Different Occupations — Continued.

CLASSIFICATION OF OCCUPATIONS.	NUMBER OF OCCUPATIONS IN WHICH —			Whole Number of Occu- pations	NUMBER OF OC- CUPATIONS IN WHICH —	
	Men only are Em- ployed	Women only are Em- ployed	Both Sexes are Em- ployed		Men are Em- ployed	Women are Em- ployed
MANUFACTURES — Con.						
Wooden goods,	186	9	36	231	222	45
Woollen goods,	196	26	106	328	302	132
Worsted goods,	86	32	52	170	138	84
MINING.						
Mining,	67	—	—	67	67	—
LABORERS.						
Laborers,	6	—	1	7	7	1
APPRENTICES.						
Apprentices,	285	12	25	322	310	37
CHILDREN AT WORK.						
Children at work,	—	—	2	2	2	2
SCHOLARS AND STUDENTS.						
Scholars,	—	—	2	2	2	2
Students,	—	—	1	1	1	1
RETIRED.						
Retired,	1,073	22	73	1,168	1,146	95
NOT GAINFUL, ETC., AND NOT PRODUCTIVE.						
Not gainful, etc.,	1	—	5	6	6	5
Not productive,	—	—	1	1	1	1
UNEMPLOYED TWELVE MONTHS.						
Unemployed twelve months,	165	14	13	192	178	27
DEPENDENTS.						
Dependents,	203	11	18	232	221	29
AT HOME AND NOT GIVEN.						
At home,	—	—	1	1	1	1
Not given,	—	—	1	1	1	1

Number of Different Occupations—Concluded.

RECAPITULATION [A].

CLASSES OF OCCUPATIONS.	NUMBER OF OCCUPATIONS IN WHICH —			Whole Number of Occu- pations	PERCENTAGES		
	Men only are Em- ployed	Women only are Em- ployed	Both Sexes are Em- ployed		Men only	Women only	Both Sexes
Government,	247	18	69	334	73.95	5.39	20.66
Professional,	220	29	180	429	51.28	6.76	41.96
Domestic service,	39	26	42	107	36.45	24.30	39.25
Personal service,	180	9	59	248	72.58	3.63	23.79
Trade,	3,415	124	778	4,317	79.11	2.87	18.02
Transportation,	479	—	29	508	94.29	—	5.71
Agriculture,	59	—	22	81	72.84	—	27.16
The Fisheries,	20	—	2	22	90.91	—	9.09
Manufactures,	6,431	1,023	1,856	9,310	69.08	10.99	19.93
Mining,	67	—	—	67	100.00	—	—
Laborers,	7	—	1	7	85.71	—	14.29
Apprentices,	285	12	25	322	88.51	3.73	7.76
Children at work,	—	—	2	2	—	—	100.00
Scholars and students,	—	—	3	3	—	—	100.00
Retired,	1,073	22	73	1,168	91.87	1.88	6.25
Not gainful, etc., and not productive,	1	—	5	7	16.67	—	83.33
Unemployed twelve months,	165	14	13	192	85.94	7.29	6.77
Dependents,	203	11	18	232	87.50	4.74	7.76
At home and not given,	—	—	2	2	—	—	100.00
TOTALS,	12,890	1,288	3,179	17,357	74.26	7.42	18.32

RECAPITULATION [B].

CLASSES OF OCCUPATIONS.	NUMBER OF OCCUPA- TIONS IN WHICH —		PERCENTAGES	
	Men are Employed	Women are Employed	Occupations in which Men are Em- ployed	Occupations in which Women are Employed
Government,	316	87	94.61	26.05
Professional,	400	209	93.24	48.72
Domestic service,	81	68	75.70	63.55
Personal service,	239	68	96.37	27.42
Trade,	4,193	902	97.13	20.89
Transportation,	508	29	100.00	5.71
Agriculture,	81	22	100.00	27.16
The Fisheries,	22	2	100.00	9.09
Manufactures,	8,287	2,879	89.01	30.92
Mining,	67	—	100.00	—
Laborers,	7	1	100.00	14.29
Apprentices,	310	37	96.27	11.49
Children at work,	2	2	100.00	100.00
Scholars and students,	3	3	100.00	100.00
Retired,	1,146	95	98.12	8.13
Not gainful, etc., and not productive,	6	5	100.00	83.33
Unemployed twelve months,	178	27	92.71	14.06
Dependents,	221	29	95.26	12.50
At home and not given,	2	2	100.00	100.00
TOTALS,	16,069	4,467	92.58	25.74

From Recapitulation "A" we learn that the number of different occupations is 17,357. In 12,890 of these, or 74.26 per cent, men only are employed; in 1,288, or 7.42 per cent, women only are employed; while in 3,179, or 18.32 per cent, both sexes are employed. The facts for each class of occupation may be seen in the recapitulation and do not require amplification in text form.

From Recapitulation "B" some additional facts are gleaned. Of the whole number of occupations, 17,357, men are employed in 16,069, or 92.58 per cent of the whole number, while women are employed in 4,467, or 25.74 per cent of the whole number. The facts for each class are readily discovered in the recapitulation.

It would be impracticable to reproduce here the specific designations of the 4,467 branches of occupation in which women were engaged or employed in 1885. We propose, however, to give an idea of this detail for three divisions of occupations, and select for such specification, "Education" with 10,094 women engaged therein, "Agents, Bankers, Brokers, etc.," with 197 women, and "Silk and Silk Goods" with 1,414 female employées.

In "EDUCATION" women are employed as assistants in college museums, governesses, instructors, officials in scientific museums, college presidents, professors of botany, history, Latin, mathematics, medicine, mineralogy, philosophy, rhetoric and English literature, zoölogy, and other branches not specified; as school proprietors, principals, and superintendents; as teachers of art, chemistry, cooking, dancing, drawing, painting, designing, writing, elocution, embroidery, English literature, ethics, French, German, Greek, Latin, other languages, mathematics, metaphysics, physical culture and gymnastics, sciences, sewing, and stenography; and as teachers in academies, boarding-schools, charitable institutions, commercial colleges, convents, female colleges, industrial schools, kindergarten, military schools, parochial schools, private schools, public schools (evening, grammar, high, intermediate, Latin, mixed, and primary), reform schools, schools for deaf-mutes, the feeble-minded, freedmen, Indians, and the blind, seminaries, State normal schools, technical, and training schools.

Under "AGENTS, BANKERS, BROKERS, ETC.," women are

reported as being employed as book agents, business agents, canvassing agents, commercial agents, insurance agents, real estate agents, and as agents for the sale of button-sewing machines, clothing, corsets, dress-cutting charts, dry goods, glue, human hair, organs, patent medicines, patterns, sewing-machines, and yeast; as bank bookkeepers, clerks, and employés; as gold-leaf, insurance, loan, real estate, and wool brokers; as dry goods buyers; as canvassers for books, corsets, dress patterns, laces, ladies' underwear, medicines, newspapers, pictures, silver polish, silver-plated ware, and soap; as rent collectors; as executors and trustees; as property and business managers; and as superintendents in cloak rooms and dry goods stores.

In "SILK AND SILK GOODS" women are employed as assorters, ballers, basters, braiders, braid folders, braid machine tenders, braid mill operatives, braid pickers, carders, cleaners, crocheters, designers, doublers, drawers, dressers, engineers, fillers, finishers, fringe makers, general hands, inspectors, knotters, labellers, matchers, and openers; as overseers of skeining, spooling, and weaving rooms; as operatives, packers, pickers, quillers, quill makers, reelers, sample card makers, seamers, silk cord makers, sizers, skeiners, skein winders, sorters, spare hands, spinners, spoolers, spreaders, stitchers, superintendents, tablet makers, testers, tiers, trimmers, twistors, warpers, weavers, and winders.

These names show, for three divisions of occupations, the great variety in the industrial duties performed by women. The details which are presented form, however, but a fraction of the 4,467 branches of employment in which women have gained a place. For the full details for all divisions of employment in the 22 classes of occupations, the reader is referred to pages 413-527, Part 2, Volume I., of the Census of Massachusetts for 1885.

SOCIAL STATISTICS OF WOMEN IN INDUSTRY.

We have shown the presence and influence of women as partners and stockholders in manufacturing industries, and the presence, influence, and marked increase in employment of women in all kinds of gainful pursuits. Believing that the facts in relation to the conjugal condition, ages, and place of birth of the women engaged in all branches of industry will be

of interest in this connection, we shall consider these social statistics in the order named.

Conjugal Condition.

We are unable to present the statistics of conjugal condition except for those engaged in manufacturing industries. The population returns were not tabulated in a way to show how many single, married, widowed, or divorced persons were engaged in each occupation. The detail would have been so great, the cost of preparation so expensive, and so much room would have been required for its proper presentation in print, that its omission was necessary.

Upon the schedules returned by the manufacturers an inquiry was made as to the respective numbers of single and married women employed, and we reproduce three tables from Volume II. of the Census of 1885, which was devoted to the statistics of manufactures, in the first of which males as well as females are included.

The first table shows the number of single males and females, and married males and females, for 14 principal industries, the figures for the other 69 industries being included in the line "Other Industries."

INDUSTRIES.	SINGLE PERSONS		MARRIED PERSONS	
	Males	Females	Males	Females
Boots and shoes,	30,455	17,207	14,595	2,601
Clothing,	3,538	11,875	1,639	1,273
Cotton goods,	18,134	28,162	8,899	4,937
Food preparations,	6,459	1,517	3,018	524
Furniture,	5,265	711	2,188	26
Leather,	5,083	141	3,947	57
Machines and machinery,	8,497	158	5,938	51
Metals and metallic goods,	14,829	2,013	7,210	181
Paper and paper goods,	2,627	2,888	2,207	898
Printing, publishing, and bookbinding,	4,918	2,601	2,286	145
Print works, dye works, and bleacheries,	4,192	2,860	1,413	136
Rubber and elastic goods,	2,946	2,597	820	106
Woollen goods,	7,336	6,221	4,350	1,063
Worsted goods,	2,993	4,447	362	161
Other industries,	61,323	18,585	26,357	1,362
ALL INDUSTRIES,	178,595	101,983	85,229	13,521

We obtain a comparative table in percentages as follows :

INDUSTRIES.	PERCENTAGES	
	Single Persons	Married Persons
Boots and shoes,	73.49	26.51
Clothing,	84.11	15.89
Cotton goods,	76.99	23.01
Food preparations,	69.25	30.75
Furniture,	72.97	27.03
Leather,	56.61	43.39
Machines and machinery,	59.10	40.90
Metals and metallic goods,	69.50	30.50
Paper and paper goods,	63.98	36.02
Printing, publishing, and bookbinding,	75.57	24.43
Print works, dye works, and bleacheries,	81.99	18.01
Rubber and elastic goods,	85.69	14.31
Woollen goods,	71.47	28.53
Worsted goods,	93.43	6.57
Other industries,	74.25	25.75
ALL INDUSTRIES,	73.97	26.03

Of the males, 67.69 per cent were single and 32.31 per cent were married; of the females, 88.29 per cent were single and 11.71 per cent married.

In every industry considered there are more single persons employed than married persons. This fact is made manifest to a marked extent in Worsted Goods, where 93.43 per cent are single; Rubber and Elastic Goods, 85.69 per cent; Clothing, 84.11 per cent; and Print Works, Dye Works, and Bleacheries, 81.99 per cent. The number of married persons is greatest in Leather, being 43.39 per cent.

Upon the population schedules for 1885, the number of women reported as being employed in manufacturing industries was 112,762. In the preceding tables there are 101,983 single women and 13,521 married women included, a total of 115,504, or an excess of 2,742 over the population returns. This excess is easily explained. Many women who were employed for a part of the Census year failed to return that fact, considering that they did not depend upon such work for a livelihood. Then, again, a person who worked part of the year for one manufacturer, and the remainder of the year for

another, would necessarily appear twice in the manufacturers' returns, thus increasing the total, and only once in the population returns.

We next present a comparative table, as regards married females, for the Census years 1875 and 1885, for 14 principal industries, giving the increase or decrease in 1885 in the employment of married females; the percentage equivalents are also given.

INDUSTRIES.	MARRIED FEMALES		Increase (+), or Decrease (-), in 1885	Percent- ages
	1875	1885		
Boots and shoes,	1,631	2,601	+970	+59.47
Clothing,	1,046	1,273	+227	+21.70
Cotton goods,	2,871	4,937	+2,066	+71.96
Food preparations,	113	524	+411	+363.72
Furniture,	57	26	-31	-54.39
Leather,	20	57	+37	+185.00
Machines and machinery,	24	51	+27	+112.50
Metals and metallic goods,	65	181	+116	+178.46
Paper and paper goods,	687	898	+211	+30.71
Printing, publishing, and bookbinding,	39	145	+106	+271.79
Print works, dye works, and bleacheries,	48	136	+88	+183.33
Rubber and elastic goods,	30	106	+76	+253.33
Woollen goods,	554	1,063	+209	+24.47
Worsted goods,	154	161	+7	+4.55
Other industries,	2,044	1,362	-682	-33.37
ALL INDUSTRIES,	9,683	13,521	+3,838	+39.64

The increase in the employment of married females is most marked in the following industries; Food Preparations, Printing, Publishing, and Bookbinding, Rubber and Elastic Goods, Leather, and Print Works, Dye Works, and Bleacheries. The increase is greatest in Food Preparations.

Under the head of "married females" are included those who were or had been married, thus adding to the "married" those who were widowed or divorced.

Ages.

The first table, under this head, shows the age periods of women in industry, by the 11 principal classes of occupations. Only those females are included who were 10 years of age and over.

Age Periods of Women in Industry: By Classes of Occupations.

CLASSES OF OCCUPATIONS.	AGE PERIODS									AGGREGATES
	10 to 13	14 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 79	80 and Over	Un- known	
Government, . . .	-	95	612	279	192	99	34	-	-	1,311
Professional, . . .	-	1,177	7,269	3,278	1,680	655	189	1	1	14,250
Domestic service, . .	391	31,098	58,197	21,087	12,985	10,087	14,656	1,454	16	149,971
Personal service, . .	-	682	2,210	2,012	2,079	1,688	1,100	13	4	9,788
Trade,	-	3,017	5,442	1,808	925	433	205	■	1	11,837
Transportation, . . .	-	14	70	32	12	12	3	-	-	143
Agriculture,	-	9	30	34	74	114	129	14	-	404
The Fisheries,	-	1	4	1	1	-	-	-	-	7
Manufactures,	-	33,274	49,759	16,751	8,286	3,329	1,322	36	5	112,762
Laborers,	-	1	10	5	6	4	5	-	-	31
Apprentices,	-	439	54	2	-	-	-	-	-	495
TOTALS,	391	69,807	123,657	45,289	26,240	16,421	17,643	1,524	27	300,999

In government employ, the prevailing age period is from 20 to 29. In professional life, also, the greatest number is from 20 to 29 years of age. In domestic service the same rule holds good, although the age periods 14 to 19 and 30 to 39 are well represented. In manufacturing industries, the age period 20 to 29 embraces the largest contingent, the age period 14 to 19 coming second in point of numbers. The figures for each age period are brought to a percentage basis in the following table:

Age Periods of Women in Industry. PERCENTAGES.

AGE PERIODS.						Number	Percentages
10 to 13 years, . . . . .	.	.	.	.	.	391	0.13
14 to 19 years, . . . . .	.	.	.	.	.	69,807	23.19
20 to 29 years, . . . . .	.	.	.	.	.	123,657	41.08
30 to 39 years, . . . . .	.	.	.	.	.	45,289	15.05
40 to 49 years, . . . . .	.	.	.	.	.	26,240	8.72
50 to 59 years, . . . . .	.	.	.	.	.	16,421	5.45
60 to 79 years, . . . . .	.	.	.	.	.	17,643	5.86
80 years and over, . . . . .	.	.	.	.	.	1,524	0.51
Unknown, . . . . .	.	.	.	.	.	27	0.01
TOTALS, . . . . .	.	.	.	.	.	300,999	100.00

But 0.13 per cent of those considered were under 14 years of age. This does not cover "Children at Work." In 1885, there were six males and five females under 10 employed, and 1,901 males and 1,128 females from 10 to 13 years of age.

Four-tenths of the army of women workers are in the height of their physical strength, being from 20 to 29 years of age. A little more than one-seventh are from 30 to 39 years of age, while a little over one-fifth, 20.54 per cent, are 40 years of age and over. The majority of these are in domestic service, as will be seen by referring to the table which shows age periods and classes of occupations.

We next present a table which shows the respective numbers of native born and foreign born women 10 years of age and over, classified by age periods. The table also gives the number of females, of specified ages, engaged in gainful pursuits, and the percentages of women in industry, belonging to each age period, of the total female population belonging to each age period.

Percentages of Female Population, 10 Years of Age and Over, Engaged in Gainful Pursuits: By Age Periods.

AGE PERIODS.	FEMALE POPULATION 10 YEARS OF AGE AND OVER			Number of Females, of Specified Ages, Engaged in Gainful Pursuits	Percent-ages
	Native Born	Foreign Born	Totals		
10 to 13 years,	63,489	7,065	70,554	391	0.55
14 to 19 years,	89,232	24,991	114,223	69,807	61.11
20 to 29 years,	134,355	72,522	206,877	123,657	59.77
30 to 39 years,	92,379	56,415	148,794	45,289	30.44
40 to 49 years,	66,751	49,444	116,195	26,240	22.58
50 to 59 years,	49,051	33,917	82,968	16,421	19.79
60 to 79 years,	56,341	24,578	80,919	17,643	21.80
80 years and over,	7,721	1,903	9,624	1,524	15.84
Unknown,	38	22	60	27	45.00
TOTALS,	559,357	270,857	830,214	300,999	36.26

The information given in this table is novel and valuable. In the age period from 14 to 19 years we find that 61.11 per cent, or more than three-fifths, are employed in gainful pursuits. Nearly as great a percentage, 59.77, is shown for those from 20 to 29 years of age. About one-third of those from 30 to 39 years of age, or 30.44 per cent, are at work. The percentages then grow smaller, but it is a startling fact that 15.84 per cent of the women 80 years of age and over are still actively engaged. A reference to the table which gives classes of occupations shows that nearly all of these are em-

ployed in domestic duties as servants in private families. Only a few are found in the more active industries at this advanced age. For purposes of comparison we present three age tables relating to men in industry prepared on identically the same bases as those for women.

The first table shows the age periods of men in industry, by classes of occupations. Only those males are included who were 10 years of age and over. Children at work were not included in the tables for women and are omitted, therefore, from the tables for men.

Age Periods of Men in Industry: By Classes of Occupations.

CLASSES OF OCCUPATIONS.	AGE PERIODS								AGGREGATES
	14 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	80 and Over	Un- known	
Government, . .	221	1,740	2,595	2,473	1,493	1,067	31	1	9,621
Professional, . .	331	4,191	4,465	3,371	2,207	1,926	61	3	16,555
Domestic service, . .	809	3,665	3,155	2,139	1,166	623	10	5	11,572
Personal service, . .	897	4,445	3,895	2,601	1,550	884	9	1	14,282
Trade,	13,247	28,327	21,988	15,397	9,369	6,468	137	3	94,936
Transportation, . .	3,438	17,005	12,999	8,430	4,535	2,247	20	1	48,675
Agriculture, . . .	9,539	15,766	11,381	11,472	11,715	16,459	912	13	77,257
The Fisheries, . . .	582	2,849	1,920	1,386	762	466	8	-	7,973
Manufactures, . . .	34,684	82,151	66,037	49,333	31,090	18,175	329	23	281,822
Mining,	147	518	387	268	163	78	1	-	1,562
Laborers,	2,332	8,073	6,461	6,458	5,092	4,378	105	6	32,905
Apprentices, . . .	4,205	964	10	4	-	-	-	-	5,183
TOTALS,	70,432	169,694	135,293	103,332	69,142	52,771	1,623	56	602,343

The figures for each age period are brought to a percentage basis in the second table.

Age Periods of Men in Industry. PERCENTAGES.

AGE PERIODS.	Number	Percentages
14 to 19 years,	70,432	11.69
20 to 29 years,	169,694	28.17
30 to 39 years,	135,293	22.46
40 to 49 years,	103,332	17.16
50 to 59 years,	69,142	11.48
60 to 69 years,	52,771	8.76
80 years and over,	1,623	0.27
Unknown,	56	0.01
TOTALS,	602,343	100.00

The third table shows the respective numbers of native born and foreign born males, 10 years of age and over, classified by age periods. The table also gives the number of males, of specified ages, engaged in gainful pursuits, and the percentages of men in industry, belonging to each age period, of the total male population belonging to each age period. We are unable to state the respective numbers of native born and foreign born males engaged in gainful pursuits.

Percentages of Male Population, 10 Years of Age and Over, Engaged in Gainful Pursuits: By Age Periods.

AGE PERIODS.	MALE POPULATION 10 YEARS OF AGE AND OVER			Number of Males, of Specified Ages, Engaged in Gainful Pursuits	Percentages
	Native Born	Foreign Born	Totals		
10 to 13 years,	63,550	6,960	70,510	-	-
14 to 19 years,	88,462	20,049	108,511	70,432	64.91
20 to 29 years,	122,390	55,483	177,873	169,694	95.40
30 to 39 years,	86,563	51,862	138,425	135,293	97.74
40 to 49 years,	59,864	46,861	106,725	103,332	96.82
50 to 59 years,	44,283	29,509	73,792	69,142	93.70
60 to 79 years,	48,671	21,264	69,935	52,771	75.46
80 years and over,	4,679	1,213	5,892	1,623	27.55
Unknown,	49	35	84	56	66.67
TOTALS,	518,511	233,236	751,747	602,343	80.13

Of the males from 14 to 19 years of age nearly two-thirds are engaged in gainful pursuits. In the age periods 20 to 29 years, 30 to 39 years, 40 to 49 years, and 50 to 59 years, more than nine-tenths are actively engaged, the average for these age periods combined being 95.92 per cent, or more than nineteen-twentieths. Of the males from 60 to 79 years of age more than three-quarters are employed and of those who have reached 80 years more than one-quarter are still engaged in gainful pursuits.

As previously stated, the children at work have been omitted from the presentations for men and women. The number of children at work in 1885 was 3,040, of which 1,907 were males and 1,133 were females. If these numbers are added to 602,343 and 300,999, respectively, we find that the males under 14 years of age formed 0.32 per cent of all males engaged in gainful pursuits, while the females represented 0.38 per cent.

To allow of quick comparison we bring the numbers and percentages of women and men in industry, by age periods, into one table.

Age Periods of Women and Men in Industry.

AGE PERIODS.	NUMBER		PERCENTAGES	
	Women	Men	Women	Men
10 to 13 years,	391	—	0.13	—
14 to 19 years,	69,807	70,432	23.19	11.69
20 to 29 years,	123,657	169,694	41.08	28.17
30 to 39 years,	45,289	135,293	15.05	22.46
40 to 49 years,	26,240	103,332	8.72	17.16
50 to 59 years,	16,421	69,142	5.45	11.48
60 to 79 years,	17,643	52,771	5.86	8.76
80 years and over,	1,524	1,623	0.51	0.27
Unknown,	27	56	0.01	0.01
TOTALS,	300,999	602,343	100.00	100.00

This table discloses some important features. More than two-fifths of the women employed in gainful pursuits are from 20 to 29 years of age. Nearly two-thirds of them are under 30 years of age. There is a very marked decrease in the number of women employed after the age of 30 years is reached. In the case of men, the variations between age periods do not show such decided changes.

It may be presumed, naturally, that marriage is the great cause that depletes the number of women in industry. Thus the permanency of women in industry is as a class and not as individuals. Large numbers are married and leave their employments, but their places are filled by younger women, who, in turn, are married and leave the field open for others.

The death rate has its influence, of course, in reducing the number of both males and females in the higher age periods, and, in the case of males, it is the chief factor. In the case of females, however, marriage must be considered as the cause which exerts the most influence.

Place of Birth.

The first presentation, under this heading, shows the number of women in industry who were born in specified states and countries, so arranged as to show also the classes of occupations.

Place of Birth of Women in Industry: By Classes of Occupations.

	CLASSES OF OCCUPATIONS.	PLACE OF BIRTH					
		Massachusetts	Other New England States	Other States	Ireland	Canada (English)	Canada (French)
1	Government,	585	271	89	151	23	8
2	Professional,	10,039	2,174	992	257	85	120
3	Domestic service,	71,845	15,211	6,414	31,980	1,869	2,220
4	Personal service,	2,647	1,160	854	3,407	122	92
5	Trade,	7,419	1,735	564	800	120	155
6	Transportation,	82	18	11	14	1	-
7	Agriculture,	254	58	19	44	-	2
8	The Fisheries,	3	-	-	-	-	-
9	Manufactures,	52,921	13,419	4,883	15,042	1,544	9,755
10	Laborers,	13	3	2	9	-	2
11	Apprentices,	353	27	18	23	5	14
12	TOTALS,	146,161	34,076	13,846	51,727	3,769	12,368

In government employ, the largest number was born in Massachusetts, and the native born form 945 out of a total of 1,311. In domestic service, 93,470 are native born and 56,501 foreign born. These figures are in direct opposition to the generally received opinion that the majority of domestic servants are foreign born. In manufacturing industries, 71,223 are native born and 41,539 are foreign born. Of all women in industry, 64.48 per cent are native born and 35.52 per cent are foreign born. The best analysis that can be made of this table is in the form of a percentage table for native and foreign born in each class of occupation, and such a presentation is subjoined.

Native and Foreign Born Women in Industry: By Classes of Occupations.

CLASSES OF OCCUPATIONS.	Native Born	Foreign Born	Total	PERCENTAGES	
				Native Born	Foreign Born
Government,	945	366	1,311	72.08	27.92
Professional,	13,205	1,045	14,250	92.67	7.33
Domestic service,	93,470	56,501	149,971	62.33	37.67
Personal service,	4,661	5,127	9,788	47.62	52.38
Trade,	9,718	2,119	11,837	82.10	17.90
Transportation,	111	32	143	77.62	22.38
Agriculture,	331	73	404	81.93	18.07
The Fisheries,	3	4	7	42.86	57.14
Manufactures,	71,223	41,539	112,762	63.16	36.84
Laborers,	18	13	31	58.06	41.94
Apprentices,	398	97	495	80.40	19.60
TOTALS,	194,083	106,916	300,999	64.48	35.52

Place of Birth of Women in Industry: By Classes of Occupations — Con.

PLACE OF BIRTH									AGGREGATES	
England	Scotland	Nova Scotia	Prince Edward Island	New Brunswick	Germany	Sweden	Portugal	Other Countries		
30	13	80	11	32	5	3	—	10	1,311	1
123	30	103	14	49	96	12	5	151	14,250	2
3,352	1,171	6,845	1,564	2,177	1,277	1,443	439	2,164	149,971	3
314	104	488	73	189	80	68	12	178	9,788	4
241	66	295	19	174	61	12	—	168	11,837	5
3	1	8	1	1	—	—	1	2	143	6
9	1	3	—	—	10	—	—	4	404	7
—	—	3	—	—	—	—	—	1	7	8
5,921	1,444	3,011	400	1,473	987	283	414	1,265	112,762	9
1	—	—	1	—	—	—	—	—	31	10
20	2	—	2	10	2	—	1	12	495	11
10,014	2,832	10,842	2,085	4,105	2,518	1,821	880	3,953	300,999	12

But little explanation is needed for this table. The predominance of the native born in nine classes of occupations is shown. The two classes in which the foreign born exceed the native born are “Personal Service” with 9,788 women engaged therein, and “The Fisheries” with only seven women engaged in them.

The numbers and percentages for each place of birth considered are shown in the following table :

Place of Birth of Women in Industry. PERCENTAGES.

PLACE OF BIRTH.	Number	Percentages
<i>Native Born.</i>	194,083	64.48
Massachusetts,	146,161	48.56
Other New England States,	34,076	11.32
Other States,	13,846	4.60
<i>Foreign Born.</i>	106,916	35.52
Ireland,	51,727	17.19
Canada (English),	3,769	1.25
Canada (French),	12,368	4.11
England,	10,014	3.33
Scotland,	2,832	0.94
Nova Scotia,	10,842	3.60
Prince Edward Island,	2,085	0.69
New Brunswick,	4,105	1.36
Germany,	2,518	0.84
Sweden,	1,821	0.61
Portugal,	880	0.29
Other Countries,	3,955	1.31
TOTALS,	300,999	100.00

The native born women in industry comprise 64.48 per cent of all women engaged in gainful pursuits. Of the whole number of native born, 194,083, there were 146,161, or 48.56 per cent, born in Massachusetts, which State furnishes nearly one-half of all the women engaged or employed in gainful pursuits. The other New England States contributed 34,076, or 11.32 per cent, while the remaining States of the Union furnished 13,846, or 4.60 per cent.

Of the 34,076 born in the other New England States, 15,211 are domestic servants and 13,419 are employed in manufactures. The other States, with 13,846 born therein, show 6,414 employed in domestic service and 4,883 in various branches of manufacturing industry.

The foreign born women in industry number 106,916, or 35.52 per cent of all women engaged or employed in gainful pursuits. Of these, those born in Ireland number 51,727, or 17.19 per cent. Of those born in Ireland, 31,980 are engaged in domestic service, while 15,042 are employed in manufacturing industries. The Canadian French number 12,368, of whom 9,755 are employed in manufactures. Those born in England number 10,014, of whom 5,921 are employed in manufacturing industries. Nova Scotia supplies 10,842, of whom 6,845 are employed as domestic servants. The numbers and percentages for the remaining foreign countries can easily be compared with the preceding table which shows the place of birth by classes of occupations.

The line "Other Countries" is indefinite and we supply a detail table which shows the place of birth of the 3,955 females, stated as being born in "Other Countries."

Place of Birth of Women in Industry. "Other Countries" in Detail.

PLACE OF BIRTH.	Number of Females Engaged in Gainful Pursuits
Africa,	8
Asia,	3
Austria,	237
Belgium,	29
British America, n. s.,	9
British Possessions, Other	634
China,	1
Cuba and West Indies,	66
Denmark,	82

Place of Birth of Women in Industry. "Other Countries" in Detail — Con.

PLACE OF BIRTH.	Number of Females Engaged in Gainful Pursuits
France,	332
Greece,	3
Holland,	37
Italy,	262
Mexico,	2
Newfoundland,	613
Norway,	177
Poland,	164
Russia,	145
Sandwich Islands,	4
South America,	11
Spain,	13
Switzerland,	98
Turkey,	11
Wales,	192
Other Foreign Countries,	772
TOTAL,	3,955

The next and final table shows the percentages of the female population, 10 years of age and over, engaged in gainful pursuits, with specification of place of birth.

Percentages of Female Population, 10 Years of Age and Over, Engaged in Gainful Pursuits: By Place of Birth.

PLACE OF BIRTH.	Female Population 10 Years of Age and over having Specified Places of Birth	Number of Females, having Specified Places of Birth, Engaged in Gainful Pursuits	Percentages
<i>Native Born.</i>	559,357	194,083	34.70
Massachusetts,	412,128	146,161	35.46
Other New England States,	108,050	34,076	31.54
Other States,	39,179	13,846	35.34
<i>Foreign Born.</i>	270,857	106,916	39.47
Ireland,	137,106	51,727	37.73
Canada (English),	8,260	3,769	45.63
Canada (French),	28,886	12,368	42.82
England,	26,059	10,014	38.43
Scotland,	7,529	2,832	37.61
Nova Scotia,	22,333	10,342	46.55
Prince Edward Island,	3,921	2,085	53.18
New Brunswick,	9,197	4,105	44.63
Germany,	9,751	2,518	25.82
Sweden,	4,262	1,821	42.73
Portugal,	2,582	880	34.08
Other Countries,	10,971	3,955	36.05
TOTALS,	830,214	300,999	36.26

The female population of Massachusetts, in 1885, 10 years of age and over, numbered 830,214. Of these, 300,999, or 36.26 per cent, were engaged in gainful pursuits. Of 559,357 native born, of the age specified, 194,083, or 34.70 per cent, were engaged or employed in some branch of industry, while 106,916, or 39.47 per cent of 270,857, who were foreign born, were similarly employed. It will be noticed that the foreign born ran 3.21 per cent above and the native born ran 1.56 per cent below the general average, the variation, however, being small, or 4.77 per cent.

CONSIDERATION AND CONCLUSIONS.

In 1885, the women in industry were considered as numbering 300,999. In arriving at this total, housekeepers and those engaged in housework were included, while housewives were omitted. This classification was, to some extent, arbitrary, but the action taken was based upon what were deemed good and sufficient reasons.

The instructions to the enumerators who obtained the information upon the population schedules, for the State Census of 1885, were as follows :

Housekeeper. — Use this term only for such persons as receive *wages* or *salary* for their services.

Housewife. — Use this only for the female head of a family, whether a wife or a woman keeping house for herself, who has no other gainful occupation, and who receives no stated salary or wage for her services.

Housework. — Use this for daughters, sisters, or other relatives or friends, who assist in the family without a stated salary or wage for their services, and who have no other remunerative employment. See *Servants*.

Housekeepers were properly included. They are regularly employed and receive a stated salary or wage for their services.

Housewives were excluded because, although the work they perform is absolutely necessary, and although it requires as much brain and muscle as many other occupations, it is performed in the house instead of in the mill, factory, or workshop. Strictly speaking, housewives are as much in industry as any other women wherever they may work. Conventional thought however considers the “home” and “industry” as dissimilar.

The home is the nursery or school from which the recruits for "industry" are obtained. It would be contrary to generally entertained opinions to include the home, that is, the housewives, under industry. To be sure, they receive no stated salary or wage, but their work is surely worth what it would cost to have it done, supposing that the housewife, as such, did no work at all. There were 372,612 housewives in Massachusetts in 1885, and only 300,999 women engaged in all other branches of industry. If a housewife were not expected nor required to work, then for the labor of 372,612 women paid service would have to be substituted. Such a demand for labor could not be supplied by the inhabitants of the State itself. Consequently, as the labor of the housewives was absolutely necessary to allow society to exist in its present form, the housewife is certainly "in industry." As has been stated, she is excluded from the previous tables in this Part for conventional and arbitrary reasons alone. The housewife is as much a member of the army of workers as the clerk or cotton weaver, and too often supplements the toil of the day, "in industry," with household duties performed at home, but outside of the "in industry" classification. On this point, the position of the Bureau is consistent. This office was the first to include "housewives" under occupations in census taking. Previous to 1875, from a census point of view, a wife did not have an "occupation." In the State Censuses of 1875 and 1885 the wife was included in the occupation tables. In succeeding censuses she should be lifted to her proper position and considered to be as much "in industry" as those women engaged in any other branch of labor.

The 372,612 housewives, in 1885, formed 36.92 per cent of the total female population in that year. In 1875, there were 328,188 housewives, being 38.27 per cent of the total female population in that year. This shows a decrease of 1.35 per cent in 1885. This per cent applied to the female population of 1885 indicates a falling off, as regards numbers, of 13,625 housewives.

The same reasons that excluded housewives might be given in support of the omission of those engaged in housework. Although those engaged in housework receive no stated salary or wage, their labor at home secures them a living, and they

are free from the heavy responsibilities of the housewife. They are "in industry," for they displace others who could be hired to perform their duties, and their number is not so large but that the unemployed women in the State, if they wished, or immigrants from other States or countries, could be obtained, in sufficient numbers, to fill their places. There is another reason why those who reported themselves as being engaged in "housework" should be included. Many of them, how many cannot be definitely stated, are, at some time during the year, engaged in other gainful pursuits. The employers always report more persons employed than are returned on the population schedules as being at work. This is due, in part, to duplications (the same person being employed by different firms during the year) but it is also due, to an unknown extent, to the employment of persons who, for various reasons, give no particular occupation, or say they are engaged in housework, when the inquiry as to occupation is made by the census-taker. Again, many domestic servants are included under housework, for many persons although performing, for relatives or friends, the same duties that would fall to a domestic servant, consider that "engaged in housework" is a more elevated and dignified title than that of "servant." In many cases, also, those who are engaged in housework during a part of the year are employed upon various kinds of work outside of their homes, which work, however, does not take them into the factory or shop.

In order to show the ages and place of birth of the women engaged in housework, we present the following tables :

Age Periods of Women Engaged in Housework.

AGE PERIODS.	Number of Women Engaged in Housework
10 to 13 years,	391
14 to 19 years,	20,582
20 to 29 years,	28,235
30 to 39 years,	11,834
40 to 49 years,	7,360
50 to 59 years,	6,835
60 to 79 years,	12,366
80 years and over,	1,377
Unknown,	5
TOTAL,	88,985

Place of Birth of Women Engaged in Housework.

PLACE OF BIRTH.		Number of Women Engaged in Housework
<i>Native Born.</i>		71,341
Massachusetts,		57,370
Other New England States,		10,185
Other States,		3,786
<i>Foreign Born.</i>		17,644
Ireland,		8,320
Canada (English),		623
Canada (French),		1,747
England,		1,855
Scotland,		567
Nova Scotia,		1,614
Prince Edward Island,		256
New Brunswick,		770
Germany,		615
Sweden,		251
Portugal,		210
Other Countries,		816
TOTAL,		88,985

Two marked lines appear in these tables. The first is the one which shows that there are 12,366 women from 60 to 79 years of age engaged in housework, and the second is the line which indicates that more than four-fifths are native born.

It must not be inferred because 300,999 women were employed in gainful pursuits in the year 1885, that they were so employed during the entire year. Massachusetts manufactures are marked by periods of great activity, when night work even becomes a necessity to fill orders, and by other periods of enforced idleness upon the part of employ  s owing to the lack of employment.

In the Bureau report for 1887 full statistics were given of the number of persons unemployed, for a greater or less time, at their principal occupation, during the year 1885. In the table which follows, we have brought into comparison the respective numbers of females employed and unemployed in 1885, and we present, also, the percentages of unemployed of the whole number employed, by occupations in detail. In a few instances, owing to variations in classification, or to the lack of returns, no percentages appear in the third column of the table. Such cases are indicated by the sign (*-).

WOMEN UNEMPLOYED IN 1885: BY OCCUPATIONS IN DETAIL.

[By the term "Unemployed," as used in this table, no particular time is meant. The period of employment was for a greater or less time during the Census year 1885. The exact duration of the period of unemployment, for each branch of industry, is given in the Bureau report for 1887.]

OCCUPATIONS.	Females Employed	Females Unemployed	Percentages of Unemployed of Whole Number Employed
<i>Government and Professional.</i>			
Government,	1,311	125	9.53
State government service,	618	64	10.36
City and town government service,	453	52	11.48
Not specified,	240	9	3.75
Professional,	14,250	5,592	39.24
Music teachers,	1,772	350	19.75
Singers,	149	35	23.49
Teachers,	9,922	4,948	49.87
Not specified,	2,407	259	10.76
<i>Domestic Service.</i>			
Boarding and lodging,	7,328	501	6.84
Boarding-house employes,	1,387	159	11.46
Hotel employes,	1,867	111	5.95
Restaurant employes,	1,528	181	11.85
Not specified,	2,546	50	1.96
Domestic service,	142,643	3,485	2.44
Housekeepers,	4,901	185	3.77
Servants (in families),	137,742	3,300	2.40
<i>Personal Service.</i>			
Personal service,	9,788	2,509	25.63
Carpet sewers,	128	34	26.56
Clerks (in offices),	59	39	66.10
Laundry work,	2,576	1,169	45.38
Nurses,	3,132	980	31.29
Scrubbers and cleaners (in mills),	224	137	61.16
Not specified,	3,669	150	4.09
<i>Trade.</i>			
Merchants and dealers,	1,357	49	3.61
Not specified,	1,357	49	3.61
Saleswomen,	3,828	449	11.73
Not specified,	3,828	449	11.73
Bookkeepers, clerks, etc.,	5,784	540	9.34
Bookkeepers and clerks,	4,991	494	9.90
Not specified,	793	46	5.80
Agents, etc.,	197	29	14.72
Not specified,	197	29	14.72
Messengers, porters, etc.,	671	180	26.83
Girls in offices and stores,	434	132	30.41
Not specified,	237	48	20.25
<i>Transportation.</i>			
Carriers on roads,	28	9	32.14
Not specified,	28	9	32.14
Carriers on steam railroads,	108	7	6.48
Not specified,	108	7	6.48
Carriers on seas and rivers,	7	3	42.86
Not specified,	7	3	42.86
<i>Agriculture.</i>			
Agriculture,	395	32	8.10
Not specified,	395	32	8.10
Care of animals, etc.,	9	3	33.33
Not specified,	9	3	33.33
<i>The Fisheries.</i>			
The fisheries,	7	3	42.86
Not specified,	7	3	42.86

Women Unemployed in 1885: By Occupations in Detail — Continued.

OCCUPATIONS.	Females Employed	Females Unemployed	Percentages of Unemployed of Whole Num- ber Employed
<i>Manufactures.</i>			
Agricultural implements,	7	1	14.29
Not specified,	7	1	14.29
Arms and ammunition,	183	85	46.45
Cartridge makers,	133	75	56.39
Not specified,	50	10	20.00
Artisans' tools,	40	16	40.00
Not specified,	40	16	40.00
Boots and shoes,	14,390	10,250	71.23
Boot and shoe makers,	14,390	10,250	71.23
Boxes (paper and wooden),	1,707	726	42.53
Paper box makers,	1,404	616	43.87
Box makers,	303	110	36.30
Brick, tiles, and sewer pipe,	8	2	25.00
Not specified,	8	2	25.00
Brooms, brushes, and mops,	308	121	39.29
Brush makers,	260	113	43.46
Not specified,	48	8	16.67
Building,	19	9	47.37
Not specified,	19	9	47.37
Buttons and dress trimmings,	599	208	34.72
Button makers,	599	208	34.72
Carpetings,	1,591	291	18.29
Carpet factory operatives,	1,551	281	18.12
Not specified,	40	10	25.00
Carriages and wagons,	43	13	30.23
Not specified,	43	13	30.23
Clocks and watches,	1,044	417	39.94
Watchmakers,	1,019	411	40.33
Not specified,	25	6	24.00
Clothing,	27,564	7,762	28.16
Button-hole makers,	124	34	27.42
Cloak makers,	327	115	35.17
Corset makers,	526	288	54.75
Dressmakers,	12,712	3,188	25.08
Hat and cap makers,	277	195	70.40
Hoop-skirt makers,	120	45	37.50
Milliners,	2,210	609	27.56
Necktie makers,	164	53	32.32
Seamstresses,	3,728	1,011	27.12
Sewing-machine operators,	393	134	34.10
Shirt makers,	573	127	22.16
Skirt makers,	-	41	*
Suspender makers,	434	194	44.70
Tailoresses,	2,800	1,473	52.44
Not specified,	3,167	255	8.05
Cooking, lighting, and heating apparatus,	23	4	17.39
Not specified,	23	4	17.39
Cordage and twine,	756	274	36.24
Cordage factory operatives,	321	260	81.00
Not specified,	435	14	3.22
Cotton goods,	31,521	13,839	43.90
Cotton mill operatives,	31,514	13,836	43.90
Not specified,	7	3	42.86
Food preparations,	738	227	30.76
Bakers,	157	37	23.57
Chocolate makers,	92	73	79.35
Confectionery makers and packers,	265	69	26.04
Not specified,	224	48	21.43
Furniture,	606	234	38.61
Chair makers,	239	39	16.32
Rattan furniture makers,	121	118	97.52
Tassel makers,	37	32	86.49
Not specified,	209	45	21.53
Glass,	81	49	60.49
Glass works employés,	81	49	60.49

Women Unemployed in 1885: By Occupations in Detail—Continued.

OCCUPATIONS.	Females Employed	Females Unemployed	Percentages of Unemployed of Whole Number Employed
<i>Manufactures—Con.</i>			
Hosiery and knit goods,	2,406	1,004	41.73
Hosiery mill operatives,	2,360	941	39.87
Not specified,	46	63	136.96
Ivory, bone, shell, and horn goods, etc.,	103	43	41.75
Not specified,	103	43	41.75
Leather,	149	46	30.87
Not specified,	149	46	30.87
Linen,	462	286	61.90
Linen mill operatives,	462	285	61.69
Not specified,	—	1	*—
Machines and machinery,	93	31	33.33
Not specified,	93	31	33.33
Metals and metallic goods,	1,766	1,024	57.98
Cutlery makers,	61	47	77.05
Jewelry makers,	643	513	79.78
Metal burnishers,	116	57	49.14
Nail makers,	123	40	32.52
Needle makers,	70	36	51.43
Tack makers,	237	167	70.46
Wire workers,	219	58	26.48
Not specified,	297	106	35.69
Models and patterns,	9	3	33.33
Not specified,	9	3	33.33
Musical instruments and materials,	58	24	41.38
Not specified,	58	24	41.38
Paper and paper goods,	3,781	829	21.93
Envelope makers,	153	73	47.71
Paper mill operatives,	3,628	756	20.84
Printing, publishing, and bookbinding,	2,349	571	24.31
Bookbindery employés,	1,025	376	36.68
Compositors and printers,	1,146	157	13.70
Not specified,	178	38	21.35
Print works, dye works, and bleacheries,	551	208	37.75
Print works operatives,	333	153	45.95
Not specified,	218	55	25.23
Rubber and elastic goods,	2,147	1,118	50.07
Rubber clothing makers,	—	39	*—
Rubber factory operatives,	2,065	970	46.97
Rubber gossamer makers,	—	52	*—
Not specified,	82	57	69.51
Scientific instruments and appliances,	53	20	37.74
Not specified,	53	20	37.74
Shipbuilding,	6	1	16.67
Not specified,	6	1	16.67
Silk and silk goods,	1,414	754	53.32
Silk mill operatives,	1,414	754	53.32
Sporting and athletic goods,	72	64	88.89
Base ball makers,	58	55	94.83
Not specified,	14	9	64.29
Straw and palm leaf goods,	3,311	3,092	93.39
Straw workers,	3,032	3,083	*—
Not specified,	279	9	3.23
Tobacco, snuff, and cigars,	561	230	41.00
Cigar makers,	422	162	38.39
Tobacco workers,	139	68	48.92
Whips, lashes, and stocks,	149	79	53.02
Whip makers,	147	75	51.02
Not specified,	2	4	*—
Wooden goods,	124	64	51.61
Picture-frame makers,	58	37	63.79
Not specified,	66	27	40.91
Woollen goods,	9,150	4,156	45.42
Woollen mill operatives,	9,149	4,131	45.15
Not specified,	1	25	*—

Women Unemployed in 1885: By Occupations in Detail — Concluded.

OCCUPATIONS.	Females Employed	Females Unemployed	Percentages of Unemployed of Whole Num- ber Employed
<i>Manufactures — Con.</i>			
Worsted goods,	1,712	801	46.79
Worsted mill operatives,	1,712	801	46.79
Other manufactures,	-	273	*-
Not specified,	-	273	*-
<i>Laborers.</i>			
Laborers,	31	15	48.39
Not specified,	31	15	48.39
<i>Apprentices.</i>			
Apprentices,	495	181	36.57

A complete analysis of this table would lead to its repetition in text form, but we shall confine our consideration to the more important lines.

Government and Professional. — A little more than one-tenth of the women in the State, city, and town government service, nearly one-fifth of the music teachers, and nearly one-half of the public and private school teachers were unemployed for a greater or less period during the year 1885.

Domestic Service. — About one-ninth of the boarding-house and restaurant employes were unemployed at some time during the year. But 2.40 per cent of the domestic servants were out of employment at any time during the Census year.

Personal Service. — Nearly one-half of those engaged in laundry work and nearly one-third of the nurses were out of employment at some time during the Census year.

Trade. — One-ninth of the saleswomen, and nearly one-tenth of the bookkeepers and clerks, were unemployed at some time during the Census year.

Manufactures. — Nearly three-quarters of the boot and shoe makers; more than two-fifths of the paper box makers; nearly one-fifth of the carpet factory operatives; more than two-fifths of the watchmakers; more than one-quarter of the dressmakers, milliners, and seamstresses; more than one-half of the tailoresses; more than two-fifths of the cotton mill operatives; nearly two-fifths of the hosiery mill operatives; more than one-fifth of the paper mill operatives; more than one-third of the bookbindery employes; more than one-eighth of the compositors and printers; nearly one-half of the rubber factory opera-

tives; more than one-half of the silk mill operatives; nearly all the straw workers; and more than nine-twentieths of the woollen and worsted mill operatives were unemployed for a greater or less period during the year 1885.

We next present a table which shows the number of women unemployed in 1885 by classes of occupations.

Women Unemployed in 1885: By Classes of Occupations.

CLASSES OF OCCUPATIONS.	FEMALES EMPLOYED		Number of Females Unemployed	Percentages of Unemployed of Whole Number Employed
	Number	Percentages		
Government and professional,	15,561	5.17	5,717	36.74
Domestic service,	149,971	49.83	3,986	2.66
Personal service,	9,788	3.25	2,509	25.63
Trade,	11,837	3.93	1,247	10.53
Transportation,	143	0.05	19	13.29
Agriculture,	404	0.13	35	8.66
The Fisheries,	7	*	3	42.86
Manufactures,	112,762	37.46	49,249	43.68
Laborers,	31	0.01	15	48.39
Apprentices,	495	0.17	181	36.57
TOTALS,	300,999	100.00	62,961	20.92

* Less than one one-hundredth of one per cent.

Of 300,999 women employed in gainful pursuits in 1885, there were 62,961, or 20.92 per cent, a little more than one-fifth, that were out of employment for a greater or less period during the year 1885. The distribution by classes of occupations is very irregular. For instance, "Government and Professional" with 5.17 per cent of the employes shows 36.74 per cent unemployed. "Domestic Service" with 49.83 per cent of the employes had but 2.66 per cent unemployed, while "Personal Service" with 3.25 per cent of the employes had 25.63 per cent unemployed. In "Trade" the unemployed reached 10.53 per cent. "Manufactures" gave employment to 37.46 per cent of all employes, but of these 43.68 per cent were unemployed at some time during the year.

The reader is referred to the classified weekly wages and daily working time of females as shown in Parts V. and VI. of this volume.

In 1874, the late Aurora H. C. Phelps petitioned the legislature to supply some means, by legislation, by which deserv-

ing women might earn a livelihood. The unexampled growth of women in industry since 1875 shows how much more potent than legislative action is individual ambition. This growth, as we have shown, was 64.56 per cent. From 1865 to 1875 the percentage of increase, as regards women in gainful pursuits, was 119.54 per cent, but as the returns for 1865 were not as complete as those for 1875, too much reliance should not be placed upon this percentage of increase.

Two questions naturally present themselves.

1. What has caused this great growth?
2. Is this growth permanent?

In answer to the first inquiry it may be said that financial reasons, or the desire to earn money, led to woman's entrance into industry. In the Part entitled "Early Factory Labor in New England," in the Bureau report for 1883, it is stated that the young women who first entered the mills as factory operatives were led to do so by the desire to educate their brothers and sisters, to help the old folks at home, and, naturally, to secure a higher order of living for themselves. These reasons, and many others, rule at the present day. The daughter wishes to help her father and mother, to keep her brothers and sisters at school, to live better and dress better than she otherwise could, and to lay by some money for the proverbial rainy day, or to supply her part of the common fund when she decides to get married.

The wife sometimes enters industry to support an invalid husband, and, too often, a lazy or intemperate one, or to aid in the bringing up of a large family. The widow, thrown upon her own resources, and not wishing to become a burden upon others, works to support herself. In 1875, there were 73,527 widows in Massachusetts, or 8.57 per cent of the entire female population. In 1885, the number of widows reached 97,158, or 9.63 per cent of the female population.

Besides the opportunities to support herself and aid in supporting others there comes to the woman in industry a sense of independence. She is no longer a burden upon certain members of society but an active factor in its growth and progress. In the early days, woman did much work at home in connection

with her regular household duties. She bound shoes and sewed straw; but these industries became concentrated in the factory and she had to leave home and follow the work. In 1875 there were 30,916 women furnished with work at home. In 1885 the number was 18,333, a decrease of 12,583, or 40.70 per cent. The tendency in all industries is more and more toward the employment of women in the factory instead of in their homes.

The advanced education of woman has opened wide avenues to her in the industrial field. As a teacher, and in other branches of professional duty, she has been successful, and the success of one has opened the road to thousands. Her business education, so long neglected, has shown fruit in her recognized position as partner, stockholder, dealer, saleswoman, book-keeper, and in other lines. The housewife engaged in her household duties may keep the books for her husband's business (let us hope not without a regular salary or wage), she may be a partner in some business, or a stockholder in a manufacturing corporation.

It is not within the province of this article to discuss the question of wages. It may be true that women are willing to do the same work as that performed by men for less pay, and that they thus displace men industrially, but considerations of supply and demand so largely affect the present wages of women, that, although this displacement may occur, it is neither the fault of the woman who, needing employment, accepts the smaller sum, nor of the manufacturer who, under existing industrial conditions, pays it.

In the long run, the displacements due to the employment of women, like those due to improvements in processes or to the introduction of machinery, are adjusted. Such displacements are temporary, and although hardship may accompany them that is also temporary.

In answer to the second inquiry, it may be said, that as woman has made an entrance into industry, and has increased her hold upon old branches of occupation and forced her way into many new ones, as she is now being educated to take an active part in all branches of employment, and as she has tasted the pleasures of independence by being able to support herself and others, one is forced to conclude that woman's position in industry is secure and will be permanent. Every occupation,

except those calling for too much out-door exposure or too much muscular labor, is open to woman, and if she has not already secured a footing therein, the next Census will show that she has found the way.

We leave to others the consideration, from a social or economic stand-point, of the effects of the entrance of woman into industry, and her continued presence and growth therein. The subject is now attracting public attention, and for that reason the information contained in this Part is of present value. In Massachusetts the conditions surrounding women in industry may be accurately noted in the light afforded by the State Census of 1885, and it may be said that no statistics, unless secured upon the broad basis of a census, can be considered as conclusive in considering such a question.

One social feature we will consider, however, because the statistics at hand, derived from official sources, seem to warrant it. That feature is the influence, if any, upon the number of births, marriages, divorces, and deaths, caused by the presence of women in industry in this State. We present first a table which shows for 1850, and for each period of five years since, the number of births in the State, and the proportion of births to each 1,000 persons.

Births in Massachusetts. 1850-1885. For Census Years.

CENSUS YEARS.	Number of Births in the Years Specified	Number of Births to 1,000 Persons
1850,	27,664	27.82
1855,	32,845	29.01
1860,	36,051	29.28
1865,	30,249	23.87
1870,	38,259	26.25
1875,	43,996	26.63
1880,	44,217	24.80
1885,	48,790	25.12

The increase in the female population from 1865 to 1875 was 28+ per cent, while the increase in the number of births was 45+ per cent. The increase in the female population from 1875 to 1885 was 17+ per cent, and the increase in the number of births was 10+ per cent.

We give next a similar table for marriages for the same years.

Marriages in Massachusetts. 1850-1885. For Census Years.

CENSUS YEARS.	Number of Marriages in the Years Specified	Number of Marriages to 1,000 Persons
1850,	10,345	20.80
1855,	12,329	21.77
1860,	12,404	20.15
1865,	13,051	20.60
1870,	14,721	20.20
1875,	13,663	16.54
1880,	15,538	17.42
1885,	17,052	17.56

In 1875, the total female population was 857,529. Of this number, 458,285, or 53.44 per cent, were single, and 399,244, or 46.56 per cent, were married. In 1885, of a total female population of 1,009,257, the single numbered 539,038, or 53.41 per cent, and the married 470,219, or 46.59 per cent. Thus, while the female population increased 17+ per cent, the percentage of unmarried females of total females decreased but 0.03 per cent; that is, did not materially change.

We next give a table which shows for 1871 and the following 17 years, to 1888, the number of marriages, and the average age of bridegrooms and brides.

Average Ages of Bridegrooms and Brides.

YEARS.	Marriages	Average Age of all Bridegrooms	Average Age of all Brides
1871,	15,746	28.6	24.6
1872,	16,142	28.6	24.7
1873,	16,437	28.7	24.8
1874,	15,564	28.8	25.3
1875,	13,663	28.9	25.0
1876,	12,749	28.2	25.3
1877,	12,758	28.2	25.2
1878,	12,893	28.2	25.0
1879,	13,802	28.2	25.2
1880,	15,538	28.9	25.1
1881,	16,768	28.8	25.1
1882,	17,684	29.2	25.4
1883,	18,194	28.8	25.3
1884,	17,333	29.1	25.1
1885,	17,052	29.2	25.3
1886,	18,018	28.9	25.3
1887,	19,533	29.0	25.5
1888,	19,739	28.9	25.5

There were 10,718 divorces granted in Massachusetts in the 20 years from 1869 to 1888. There were 325 granted in 1871 and 796 in 1887. The causes were as follows :

CAUSES FOR DIVORCE.	Number Granted for each Specified Cause
Adultery,	3,037
Desertion,	4,834
Intoxication,	1,242
Extreme cruelty,	571
Cruel and abusive treatment,	739
Neglect to provide,	213
Imprisonment,	63
Impotency,	19
TOTAL,	10,718

We extract the following table from a special report made by the Commissioner of Labor of the United States on "Marriage and Divorce :"

Divorces in the United States, 1867 to 1886, by Classified Causes.

CLASSIFIED CAUSES.	To Husband	To Wife	Aggregates	Percentages
Adultery,	38,184	29,502	67,686	20.59
Cruelty,	6,122	45,473	51,595	15.69
Desertion,	51,485	75,191	126,676	33.54
Drunkenness,	1,434	12,432	13,866	4.22
Neglect to provide,	-	7,955	7,955	2.42
Combinations of the preceding or of a preceding with some minor cause,	7,426	32,419	39,845	12.12
All other causes,	7,839	13,204	21,093	6.42
TOTALS,	112,540	216,176	328,716	100.00

These statistics give the actual recorded divorces only. We have no facts or estimates relative to the number of pending cases, the number of legal separations, or those instances where the aid of the law has not been invoked. The average duration of marriage previous to divorce has been ascertained to be, by the United States figures, 9.17 years.

The number of divorces in Massachusetts, in the 20 years from 1867 to 1886, was 9,924.

In 1875, there were 1,717 divorced women in the State, as shown by the Census, or 0.20 per cent of the total female popu-

lation. The number had increased to 1,919 in 1885, but the percentage had fallen to 0.19.

The next table shows the death-rates of males and of females, (number to 1,000 population), for the Census years from 1865 to 1885.

*Comparative Death-rates for Males and Females in Massachusetts.
1865-1885. For Census Years.*

CENSUS YEARS.	Death-rates of Males	Death-rates of Females
1865,	21.7	19.6
1870,	19.5	18.6
1875,	21.8	20.5
1880,	20.3	19.3
1885,	20.2	19.0

In 1888, there were 26 deaths of persons 100 years of age or more, of which seven were males and 19 were females. In the 10 years from 1879 to 1888 there were 189 deaths of persons 100 years of age or more, 52 being males and 137 females.

We fail to see, in these tables relating to births, marriages, divorces, and deaths, any marked indications of decrease in the number of births and marriages or increase in the number of divorces and deaths. If it were otherwise, it might be assumed that the growth of women in industry was one of the principal causes.

Births, Marriages, and Deaths in 50 Cities and Towns in 1885.

	COUNTIES, CITIES, AND TOWNS.	Total Female Population (Census of 1885)	Number of Females Employed in Gainful Pursuits	Percentages
	BARNSTABLE.			
1	Harwich,	1,399	254	18.16
	BERKSHIRE.			
2	Adams,	4,251	1,538	36.18
3	Great Barrington,	2,345	651	27.76
4	Lee,	2,221	688	30.98
5	North Adams,	6,481	2,114	32.62
6	Pittsfield,	7,596	2,363	31.11
	BRISTOL.			
7	Attleborough,	6,703	1,877	28.00
8	FALL RIVER,	30,063	11,014	36.64
9	Mansfield,	1,529	458	29.95
10	NEW BEDFORD,	17,980	5,728	31.86
11	TAUNTON,	12,146	3,606	29.69

A decrease in the number of births appears in 1885 as compared with 1860. If the proportion for 1860 had obtained in 1885, there would have been 56,866 births instead of 48,790, or 8,076 more than reported. It must be remembered, however, that our population has been largely increased since 1860 by the immigration of parents with large families. The birth-rate in these families would naturally be less than in younger families, but every addition to the population of large numbers of people, without a corresponding birth-rate, naturally decreases the general birth-rate, as the total population is used as a basis. In 1875 there was one birth to each 9.07 married women. In 1885, the rate was one to each 9.64 married women.

As regards marriages, the number shows a gradual increase. For reasons similar to those given in the case of births, the marriage rate shows a gradual decline since 1865. We see that the average ages of bridegrooms and brides have fluctuated slightly, but the average runs very evenly from 1871 to 1888. The divorces are principally for desertion, cruelty, and intoxication, and nearly two to one in favor of the wife. As regards death-rates, the figures show a lower death-rate for women, and the greatest longevity on their part.

For a final comparison, we present the respective numbers of births, marriages, and deaths, in 50 cities and towns, in 1885.

Births, Marriages, and Deaths in 50 Cities and Towns in 1885.

Female Population 20 Years of Age and Over	FOR THE YEAR 1885			PROPORTIONS			
	Births	Marriages	Deaths (Females 20 Years of Age and Over only)	Births: One in —	Marriages: One in —	Deaths (Fe- males 20 Years of age and Over only): One in —	
949	50	32	24	18.98	29.66	39.54	1
2,308	305	82	37	7.57	28.15	62.38	2
1,476	84	29	23	17.57	50.90	64.17	3
1,334	75	21	19	17.79	63.52	70.21	4
3,799	490	103	70	7.75	36.88	54.27	5
4,576	397	105	81	11.53	43.58	56.49	6
4,207	361	112	66	11.65	37.56	63.74	7
17,027	1,767	530	323	9.64	32.13	51.91	8
1,026	68	21	19	15.09	48.86	54.00	9
11,576	874	391	213	13.24	29.61	54.35	10
7,853	641	182	164	12.25	43.15	47.88	11

Births, Marriages, and Deaths in 50 Cities and Towns in 1885—Concluded.

	COUNTIES, CITIES, AND TOWNS.	Total Female Popula- tion (Census of 1885)	Number of Females Em- ployed in Gainful Pur- suits	Percentages
	ESSEX.			
1	Amesbury,	2,303	747	32.44
2	GLOUCESTER,	9,980	2,245	22.49
3	HAVERHILL,	11,340	3,413	30.10
4	LAWRENCE,	21,156	8,235	38.93
5	LYNN,	24,115	7,905	32.78
6	Methuen,	2,406	632	26.27
7	Peabody,	4,793	1,150	23.99
8	SALEM,	15,315	4,713	30.77
	FRANKLIN.			
9	Greenfield,	2,558	742	29.01
10	Montague,	2,820	623	22.09
11	Orange,	1,814	339	18.69
	HAMPDEN.			
12	Chicopee,	6,159	2,012	32.67
13	HOLYOKE,	14,677	5,399	36.79
14	SPRINGFIELD,	19,698	6,081	30.87
	HAMPSHIRE.			
15	Easthampton,	2,389	931	38.97
16	NORTHAMPTON,	7,044	1,981	28.12
17	Ware,	3,282	1,304	39.73
	MIDDLESEX.			
18	Arlington,	2,468	666	26.99
19	CAMBRIDGE,	31,049	8,447	27.21
20	Frammingham,	4,265	1,425	33.41
21	LOWELL,	35,590	15,041	42.26
22	NEWTON,	11,018	3,972	36.05
23	WALTHAM,	7,901	2,536	32.10
24	Woburn,	5,848	1,385	23.68
	NORFOLK.			
25	Canton,	2,287	815	35.64
26	Quincy,	5,953	1,543	25.92
27	Weymouth,	5,391	1,471	27.29
	PLYMOUTH.			
28	BROCKTON,	10,385	2,960	28.50
29	Hingham,	2,335	662	28.35
30	Middleborough,	2,711	793	29.25
	SUFFOLK.			
31	BOSTON,	204,211	64,469	31.57
32	CHELSEA,	13,570	3,817	28.13
	WORCESTER.			
33	Blackstone,	2,693	866	32.16
34	Clinton,	4,923	1,955	39.71
35	FITCHBURG,	7,873	2,090	26.55
36	Milford,	4,787	1,555	32.48
37	Southbridge,	3,371	1,017	30.17
38	Winchendon,	1,932	502	25.98
39	WORCESTER,	34,707	8,141	23.46
40	TOTALS,	649,831	204,871	31.53

There is a wide opportunity for comparisons offered in this table. The cities and towns were taken at random, the purpose being to bring large and small cities and large and small towns together for comparison. In the town of Harwich the

Births, Marriages, and Deaths in 50 Cities and Towns in 1885—Concluded.

Female Population 20 Years of Age and Over	FOR THE YEAR 1885			PROPORTIONS			
	Births	Marriages	Deaths (Females 20 Years of Age and Over only)	Births: One in —	Marriages: One in —	Deaths (Fe- males 20 Years of age and Over only): One in —	
1,435	119	53	28	12.06	27.08	51.25	1
5,863	596	244	86	9.84	24.03	68.17	2
7,493	572	242	106	13.10	30.96	70.69	3
13,406	987	361	221	13.58	37.14	60.66	4
16,091	1,091	532	239	14.75	30.25	67.33	5
1,536	92	31	23	16.70	49.55	66.78	6
2,873	252	55	48	11.40	52.24	59.85	7
10,146	652	255	213	15.56	39.79	47.63	8
1,642	106	60	27	15.49	27.37	60.81	9
1,525	163	38	21	9.36	40.13	72.62	10
1,174	79	29	23	14.86	40.48	51.04	11
3,702	346	97	87	10.70	38.16	42.55	12
8,411	1,283	299	125	6.56	28.13	67.29	13
12,828	968	364	213	13.25	35.24	60.23	14
1,498	90	28	24	16.64	53.50	62.42	15
4,511	294	103	69	15.34	43.80	65.38	16
1,949	123	55	34	15.85	35.44	57.32	17
1,550	125	46	27	12.40	33.70	57.41	18
19,358	1,613	493	396	12.00	39.27	48.88	19
2,839	191	70	42	14.86	40.56	67.60	20
23,393	1,749	670	360	13.38	34.91	64.98	21
7,189	397	160	91	18.11	44.93	79.00	22
5,332	343	141	86	15.55	37.82	62.00	23
3,523	319	95	86	11.04	37.08	40.97	24
1,439	78	29	32	18.45	49.62	44.97	25
3,693	398	100	64	9.28	36.93	57.70	26
3,411	248	83	69	13.75	41.10	49.43	27
6,724	464	210	94	14.49	32.02	71.53	28
1,622	72	27	33	22.53	60.07	49.15	29
1,858	67	26	41	27.73	71.46	45.32	30
133,690	11,373	4,021	2,789	11.76	33.25	47.93	31
8,741	612	240	169	14.28	36.42	51.72	32
1,638	100	39	20	16.38	42.00	81.90	33
2,986	255	86	42	11.71	34.72	71.10	34
4,880	416	127	93	11.73	38.43	52.47	35
3,049	177	73	57	17.23	41.77	53.49	36
1,926	180	51	37	10.70	37.76	52.05	37
1,242	91	27	24	13.65	46.00	51.75	38
21,438	1,957	529	369	10.95	40.53	58.10	39
413,735	34,150	11,797	7,652	12.12	35.07	54.07	40

percentage of females engaged in gainful pursuits is 18.16 per cent of the total female population. In the manufacturing city of Fall River the corresponding percentage is 36.64. In the small town engaged in agriculture and the fisheries, with but

few women, comparatively, at work, there was one birth in each 18.98 of the female population 20 years of age and over, while in Fall River, with more than one-third of its female population at work, there was one birth in each 9.64 of the female population 20 years of age and over, or very nearly twice as many. In Harwich there was one marriage in 29.66, the proportion in Fall River being one in 32.13. In Harwich there was one death in each 39.54 of the female population 20 years of age and over; in Fall River the proportion was one in 51.91. In the town of Orange, with 18.69 per cent of its female population engaged in gainful pursuits, there was one birth in 14.86, one marriage in 40.48, and one death in 51.04 of its female population 20 years of age and over. In the city of Lowell, with 42.26 per cent of its female population at work, there was one birth in 13.38, one marriage in 34.91, and one death in 64.98 of its female population 20 years of age and over. In all these respects, the best results are shown in the city of Lowell, with its large proportion of women at work.

If we bring into comparison the totals for the 50 cities and towns and for the State we secure the following table :

Births, Marriages, and Deaths. Comparisons for 50 Cities and Towns, and for the State.

CLASSIFICATION.	Fifty Cities and Towns	Other Cities and Towns	The State
Total female population,	649,831	359,426	1,009,257
Number of females employed in gainful pursuits, . .	204,871	96,128	300,999
Percentages,	31.53	26.74	29.82
Female population 20 years of age and over,	413,735	231,702	645,437
Number of births,	34,150	14,640	48,790
Number of marriages,	11,797	5,255	17,052
Number of deaths of females 20 years of age and over, .	7,652	4,392	12,044
Proportion; births: one in —	12.12	15.83	13.23
Proportion; marriages: one in —	35.07	44.09	37.85
Proportion; deaths of females 20 years of age and over: one in —	54.07	52.76	53.59

The last three lines in the table are the ones requiring particular consideration. We see that there were more births, more marriages, and fewer deaths of females 20 years of age and over in the 50 cities and towns than in the State at large, or in the other cities and towns of the State.

The 50 cities and towns considered contain 64.39 per cent of the total population, 64.10 per cent of the female population 20 years of age and over, and 68.06 per cent of the whole number of females engaged in gainful pursuits. These 50 cities and towns should be credited with 69.99 per cent of the births, 69.18 per cent of the marriages, and 63.53 per cent of the deaths. The relations of these figures may be more easily seen from the following :

	Per cent.		Per cent.
Total population,	64.39	Births,	69.99
Female population, 20 years of age and over,	64.10	Marriages,	69.18
Females engaged in gainful pursuits,	68.06	Deaths,	63.53

It will be seen that the percentages of births and marriages are greater than the percentages of population, and that the percentage of deaths is less than the percentages of population.

We consider that these figures show conclusively that the presence of woman in industry has not decreased the number of births or marriages nor increased the number of deaths.

We present a similar table of comparisons for the Census years 1875 and 1885.

Births, Marriages, and Deaths. Comparisons for 1875 and 1885.

CLASSIFICATION.	1875	1885
Total female population,	857,529	1,009,257
Number of females employed in gainful pursuits,	182,906	300,999
Percentages,	21.33	29.82
Female population 20 years of age and over,	528,541	645,437
Number of births,	43,996	48,790
Number of marriages,	13,663	17,052
Number of deaths of females 20 years of age and over,	9,710	12,044
Proportion; births: one in —	12.01	13.23
Proportion; marriages: one in —	38.68	37.85
Proportion; deaths of females 20 years of age and over: one in —	54.43	53.59

The last three lines show that there were more births in 1875 than in 1885, more marriages in 1885 than in 1875, and fewer deaths in 1875 than in 1885. The proportions, however, for the two years, show no wide variations.

From the preceding presentations, comparisons, and deductions, we extract and print in condensed form the following general conclusions :

PARTNERS AND STOCKHOLDERS.

1. *In the manufacturing and mechanical industries of the Commonwealth, in 1885, the proportion of female partners was 1 in 16; that is, of the whole number of partners, one-sixteenth were women.*

2. *In the same industries, and at the same time, the proportion of female stockholders was 1 in 3.69; that is, of the whole number of stockholders in manufacturing corporations, more than one-fourth were women.*

3. *The aggregate business influence of women, on the basis of numbers, considering their presence as partners in private firms and as stockholders in corporations in our manufacturing and mechanical industries, was a little less than one-fifth.*

EMPLOYÉS IN GAINFUL PURSUITS.

1. *In 1875, the women engaged in gainful pursuits formed 21.33 per cent of the total female population; in 1885, the percentage was 29.82, a gain, as regards total female population, of 8.49 per cent.*

2. *In 1875, the males formed 73.19 per cent and the females 26.81 per cent of all persons employed in gainful pursuits. In 1885, the males were 66.62 per cent and the females 33.38 per cent of the total persons employed. This shows an absolute gain of women in industry of 6.57 per cent, and an industrial displacement of an equal percentage of men. Of the total gain in number of employés from 1875 to 1885, the percentage for males was 46.19 and for females 53.81.*

3. *From 1875 to 1885, the male population increased 17.44 per cent; in industry, the males increased 20.30 per cent. During the same period, the female population increased 17.69 per cent; the women in industry increased 64.56 per cent. The female net excess was 0.25 per cent as regards*

population, and 44.26 per cent as regards representation in gainful pursuits.

4. Considering comparative increases, the males in industry increased 1.16 times as fast as the male population; women in industry increased 3.65 times as fast as the female population; and women in industry increased 3.18 times as fast as the males in industry.

5. In 1875, there were 19 branches of industry in which women were not employed; in 1885, there were but 8 branches of industry in which women were not employed. In both 1875 and 1885, there were 15 branches of industry in which women were in a preponderance, representing 50 or more per cent of all persons employed therein.

6. Considering the 17,357 branches of occupation in detail, all included in the 22 grand classes, and representing the entire population of the Commonwealth, men only were employed in 74.26 per cent, women only in 7.42 per cent, and both sexes in 18.32 per cent. Of the whole number of branches of occupations, in detail, 17,357, men were employed in 16,069, or 92.58 per cent, and women in 4,467, or 25.74 per cent.

SOCIAL STATISTICS.

1. Of the whole number of persons in industry, 73.97 per cent were single and 26.03 per cent were married. Of the males, 67.69 per cent were single and 32.31 per cent were married. Of the females, 88.29 per cent were single and 11.71 per cent were married. In 1885 as compared with 1875, the increase in married females was 39.64 per cent.

2. The females in industry considered were at least 10 years of age. Those from 10 to 13 years of age formed 0.13 per cent of the total; from 14 to 19 years of age, 23.19 per cent; from 20 to 29 years of age, 41.08 per cent; from 30 to 39 years of age, 15.05 per cent; 40 years of age and over, 20.55 per cent.

3. Of the total female population from 10 to 13 years of age, 0.55 per cent were engaged in gainful pursuits; from 14

to 19 years of age, 61.11 per cent; from 20 to 29 years of age, 59.77 per cent; from 30 to 39 years of age, 30.44 per cent; from 40 to 49 years of age, 22.58 per cent; from 50 to 59 years of age, 19.79 per cent; from 60 to 79 years of age, 21.80 per cent; 80 years of age and over, 15.84 per cent; those whose ages were unknown, 45 per cent.

4. Of the women employed in domestic service, 62.33 per cent were native born and 37.67 per cent were foreign born; in manufacturing and mechanical industries, 63.16 per cent were native born and 36.84 per cent were foreign born; in all other occupations, 76.80 per cent were native born and 23.20 per cent were foreign born.

5. Of the women in all branches of industry, 64.48 per cent were native born and 35.52 per cent were foreign born. Of the native born, considered as 64.48 per cent of the total, 48.56 per cent were born in Massachusetts, 11.32 per cent were born in the other New England States, and 4.60 per cent were born in other States of the Union. Considering 35.52 as the foreign born total, 17.19 per cent were born in Ireland, and 18.33 per cent were born in other foreign countries.

6. Of the whole number of native born females in the State, 10 years of age and over, 34.70 per cent were engaged in gainful pursuits. Of the whole number of foreign born females in the State, 10 years of age and over, 39.47 per cent were engaged in gainful pursuits. Of both native and foreign born women, of the ages specified, 36.26 per cent were so engaged.

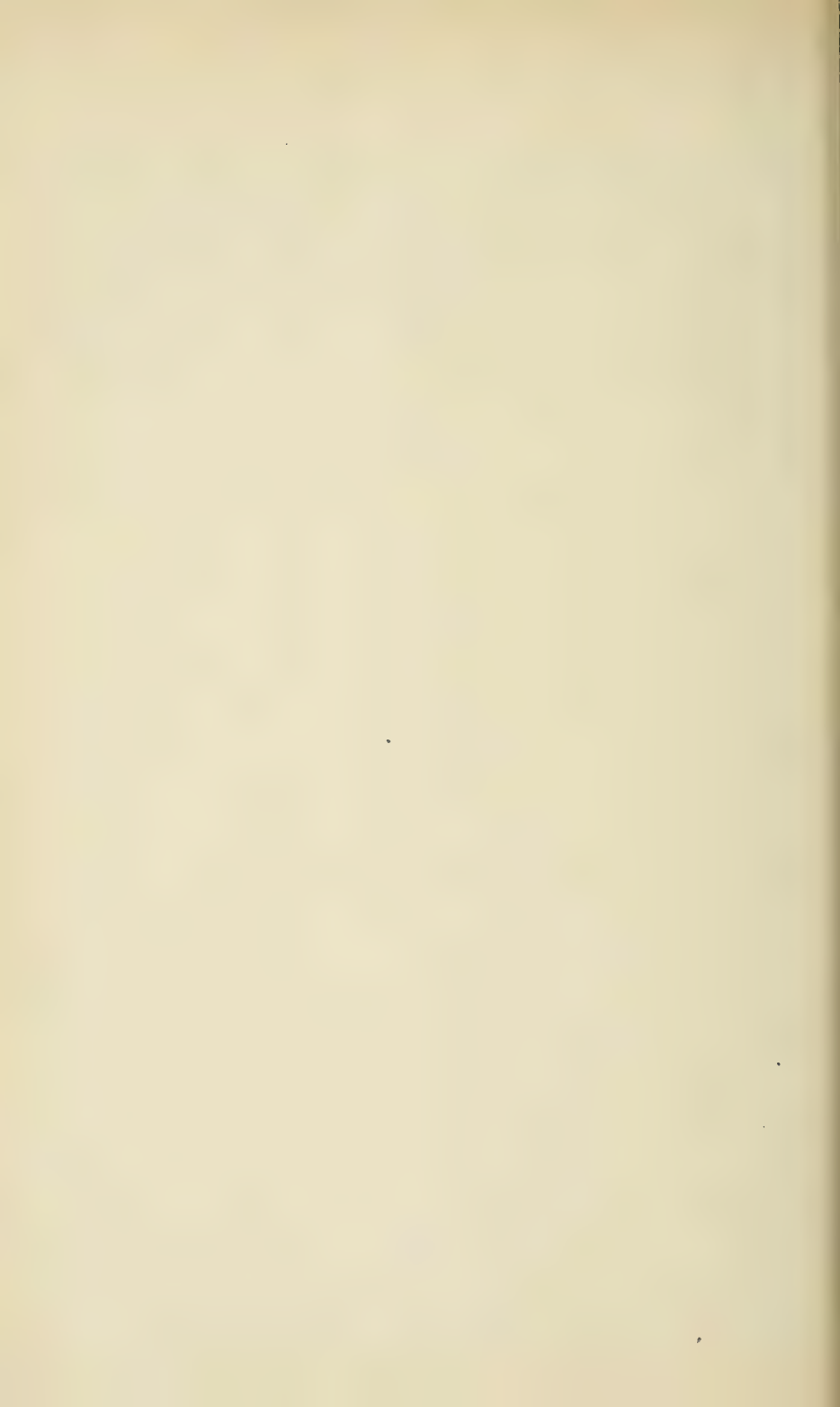
7. In 1885 as compared with 1875, the number of housewives fell off 13,625, or 1.35 per cent.

8. Of the 88,985 women engaged in housework, 12,366, or 13.90 per cent, were from 60 to 79 years of age.

9. Of the 88,985 women engaged in housework, 71,341, or 80.17 per cent, were native born.

10. More than one-fifth (20.92 per cent) of the women engaged in gainful pursuits in Massachusetts, in 1885, were unemployed for a greater or less period during that year.

11. *The figures given and comparisons made in relation to births, marriages, and deaths, show conclusively that the presence of women in industry has not decreased the number of births or marriages, nor increased the number of deaths, for 50 cities and towns, having large percentages of women at work, with 64.39 per cent of the total population, had 69.99 per cent of the total number of births, 69.18 per cent of the whole number of marriages, and but 63.53 per cent of the total number of deaths.*

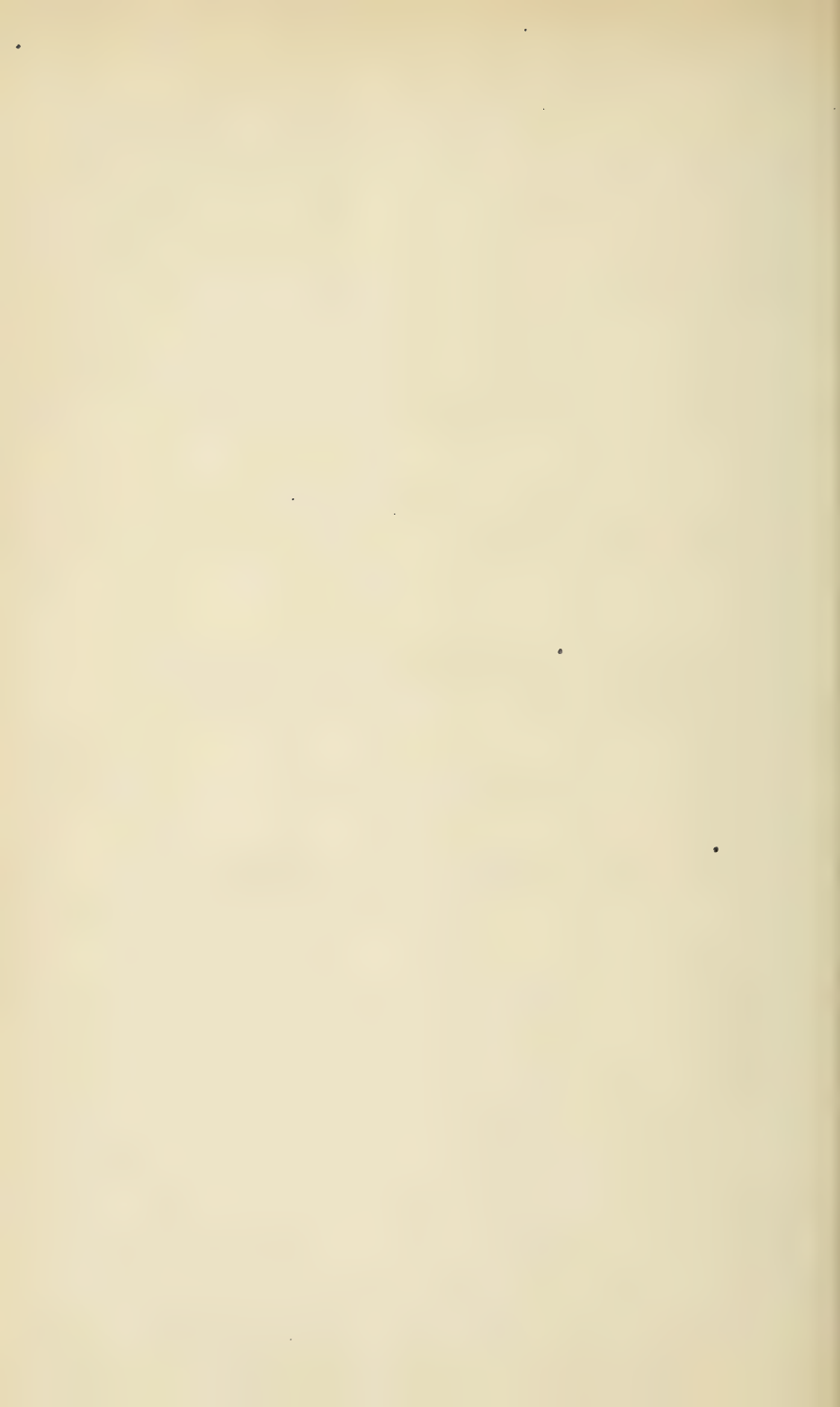


PART VIII.

INDEX TO REPORTS.

1870-1889.

TWENTY YEARS.



PART VIII.

INDEX TO REPORTS: 1870-1889.

The Massachusetts Bureau of Statistics of Labor was established June 23, 1869. The first annual report was issued in March, 1870. Since that time a report has been issued yearly and the present volume forms the twentieth in the series. The chief of the Bureau from 1869 to 1873 was the late Gen. Henry K. Oliver who was assisted by Mr. George E. McNeill as deputy. These officers issued the four annual reports for the years 1870 to 1873. The officers from 1874 to 1876 were Col. Carroll D. Wright, now Commissioner of the United States Department of Labor, chief, and Maj. George K. Long, deputy, who issued three annual reports. The position of deputy was abolished in 1876 and a chief clerk appointed instead. From 1877 to 1887, eleven annual reports were issued by Mr. Wright as chief, and Mr. Charles F. Pidgin, first clerk. Mr. Wright resigned his position in 1888 to accept the one now held by him, and Mr. Horace G. Wadlin was appointed chief. The preparation of the two annual reports for 1888 and 1889 has devolved upon Mr. Wadlin, and on Mr. Pidgin who was retained as first clerk.

The law creating the Bureau provided that the officers should "collect, assort, arrange, and present in annual reports to the general court * * * * * statistical details relating to all departments of labor in the Commonwealth, especially in relation to the commercial, industrial, social, educational, and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industry of the Commonwealth." This work has been performed by the officers of the Bureau

during the past twenty years, and, although the subjects for investigation are by no means exhausted, yet the broad field covered by the original law has been largely traversed during that time.

Of the twenty reports of the Bureau, one had less than two hundred octavo pages; three had over two hundred but less than three hundred; four over three hundred but less than four hundred; five over four hundred but less than five hundred; five over five hundred but less than six hundred; while two have exceeded six hundred pages in length.

From 1870 to 1873 some 62 subjects were considered, 14 being discussed in the Report for 1870, 26 in that for 1871, 14 in that for 1872, and 8 in the issue for 1873. From 1874 to 1889 there were 76 parts presented in 16 reports. One report had one part only; one had 2; one had 3; four had 4; four had 5; three had 6; and two had 8.

In the Report for 1876 a digest was presented of the seven years' work of the Bureau to that time. A general index, however, has never been prepared, and it was deemed fitting that such an index should form part of the twentieth volume. It cannot fail to be of value to those interested in the labor question, who wish to refer to the Bureau reports, and on the score of utility its preparation and publication are fully warranted.

The index presented hereinafter consists of three parts. First is given the tables of contents of the twenty reports in chronological order. Second, we present a topical index, covering, in condensed form, the general subjects considered in the twenty reports. Third, we supply an alphabetical index to subjects embracing some 1,235 lines. The three parts of the index are devoted exclusively to the regular annual reports of the Bureau. They do not cover, in any way, the material contained in the Census volumes for 1875, 1880, and 1885, the annual statistics of manufactures for 1886, 1887, 1888, and 1889, nor the contents of the special reports made between 1869 and 1889. The entire work of the Bureau will, however, be summarized in a Part of the Report for 1890, which will give a history of the twenty-one years' existence of the Bureau.

The first division of the index presents the contents of the Bureau reports arranged chronologically from 1870 to 1889. In the case of each report the number of pages is given.

CONTENTS OF BUREAU REPORTS: 1870-1889.

FIRST ANNUAL REPORT. 1870. pp. 423.

- Labor and its attendant legislation.
- Cotton manufacturing.
- Agricultural labor.
- Labor and legislation in Massachusetts.
- Origin of labor movement.
- Origin and development of industrial questions.
- Factory system.
- Testimony, at hearings before the Bureau.
- Children in factories, their employment and schooling.
- The wage system and its results.
- Homes of low-paid laborers in the city of Boston.
- Homes of the middle class.
- Intemperance.
- Appendix: containing replies to blanks, extracts therefrom, testimony and remarks, with statistical tables; summary of laws relating to labor, and catalogue of books upon labor.

SECOND ANNUAL REPORT. 1871. pp. 655.

- Combination.
- Combination by guilds.
- Combinations by trades-unions.
- Strikes.
- Strikes in Massachusetts.
- * Wages and earnings in —
 - Agriculture.
 - Fisheries.
 - Land and water travel and transportation.
 - Domestic labor and women's work.
 - Industrial occupations.
 - Mechanical trades.
- Cost of living.
- Co-operation.
- Work and home life of factory operatives, their earnings, etc.
- Children in factories.
- Half-time schools.
- Hours of factory labor.
- Facts bearing on the ten-hour argument.
- Hours of labor in Europe.
- Tenement houses, or homes of low-paid laborers in Boston.
- Poverty.
- Intemperance.
- Hours of labor.
- Statements and experiences of workingmen.
- Friendly societies.

THIRD ANNUAL REPORT. 1872. pp. 598.

- Wages and earnings in agriculture; commercial, industrial, and mechanical occupations, and domestic labor and women's work. (See Report for 1871.)
- Hours of labor.
- Cost of living.
- Workingmen's statistics.
- Savings banks.
- Condition of operatives in factory towns.
- Chinese labor.
- Truck system.
- Accidents.
- Strikes.
- Homes of the working classes.
- Schools for factory children.
- Education and half-time schools.
- Purchasing power of wages.

FOURTH ANNUAL REPORT. 1873. pp. 522.

Wages and earnings.
 Cost of living.
 Savings and savings banks.
 Ownership of property.
 Co-operation.
 Education.
 Poverty.
 Hours of labor.

FIFTH ANNUAL REPORT. 1874. pp. 292.

Part I. — Education and employment of young persons and children, and digest of American and European laws relative to the subject.
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THIRTEENTH ANNUAL REPORT. 1882. pp. 473.

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FOURTEENTH ANNUAL REPORT. 1883. pp. 412.

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SIXTEENTH ANNUAL REPORT. 1885. pp. 551.

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SEVENTEENTH ANNUAL REPORT. 1886. pp. 411.

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NINETEENTH ANNUAL REPORT. 1888. pp. 239.

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Part I. — Relation of wages to the cost of production.

Part II. — Markets, transportation, imports, exports, and competition.

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Part VIII. — Index to reports: 1870-1889. Twenty years.

Of the twenty reports, only those for 1879, 1887, 1888, and 1889 are now in print and can be supplied. Owing to the provision made by the legislature for the printing of the parts of the reports in pamphlet form, many of such parts are still in print. The Bureau issues a circular which contains a list of its publications which are still in print. This list includes the Compendium of the Census of 1875, the four Census volumes for 1885, the four reports now in print and previously enumerated, the various parts of reports printed separately, several special reports, a series of reprints specially authorized by the legislature, and the reports of the several Conventions of Chiefs and Commissioners of Bureaus of Statistics of Labor and Industries in the United States and Canada. A circular, with the titles of these books and the cost for postage, will be mailed to all parties sending a request for same.

No charge is made for the reports, they being public documents, and free to citizens of Massachusetts. To such citizens they have been, in past years, sent free of expense by mail or express. As the Bureau now publishes two reports yearly, and the demand for the same has grown to very large dimensions, the Bureau, owing to the lack of a specific appropriation for postage, etc., will, in future, be obliged to limit its free distribution to its American and foreign exchanges which have built up its library until it now contains 7,500 volumes.

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The alphabetical index shows the subjects, the volume of the report, indicated by Roman numerals, the year in which the report was published, the number of the part (also in Roman numerals) in which the subject is considered, and the page of the report upon which the consideration begins. Previous to 1874 the reports were not arranged in clearly defined parts, so that generally there are no specifications of parts opposite the years 1870 to 1873 inclusive.

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Hours of labor,	447	5.22
Industrial statistics,	738	8.62
Intemperance, pauperism, and crime,	571	6.67
Labor legislation,	292	3.41
Political statistics,	202	2.36
Savings and savings banks,	193	2.26
Social statistics,	278	3.25
Strikes and lockouts,	303	3.54
Testimony of workingmen,	145	1.69
Titles, introductions, tables of contents, indexes, etc.,	533	6.23
Trades-unions,	31	0.36
Unemployment,	303	3.54
Wages, prices, and cost of living,	1,859	21.72
Other subjects not classified above,	841	9.83
	8,559	100.00

From the above Summary, which shows the number of pages devoted to each general subject in the twenty annual reports from 1870 to 1889, we prepare a text presentation.

1. *The whole number of octavo pages, in the twenty annual reports of the Bureau from 1870 to 1889, was 8,559, or an average to each of 428 pages.*

2. *The various general subjects occupied pages and formed percentages of the whole number of pages as follows: Arbitration and Conciliation, 120 pages, or 1.40 per cent; Condition of Employés in their Homes and Employments, 1,008 pages, or 11.78 per cent; Co-operation and Profit Sharing, 365 pages, or 4.26 per cent; Education and Employment of Children, 182 pages, or 2.13 per cent; Health and Food Statistics, 148 pages, or 1.73 per cent; Hours of Labor, 447 pages, or 5.22 per cent; Industrial Statistics, 738 pages, or 8.62 per cent; Intemperance, Pauperism, and Crime, 571 pages, or 6.67 per cent; Labor Legislation, 292 pages, or 3.41 per cent; Political Statistics, 292 pages, or 2.36 per cent; Savings and Savings Banks, 193 pages, or 2.26 per cent; Social Statistics, 278 pages, or 3.25 per cent; Strikes and Lockouts, 303 pages, or 3.54 per cent; Testimony of Workingmen, 145 pages, or 1.69 per cent; Trades-unions, 31 pages, or 0.36 per cent; Unemployment, 303 pages, or 3.54 per cent; and Wages, Prices, and Cost of Living, 1,859 pages, or 21.72 per cent.*

3. *Wages, Prices, and Cost of Living occupied more than one-fifth of the whole number of pages for the twenty years, and Condition of Employés in their Homes and Employments took up nearly one-eighth of the total number of pages printed.*

4. *The titles, introductions, tables of contents, indexes, etc., occupied 533 pages, or 6.23 per cent, while 841 pages, or 9.83 per cent, were devoted to subjects not classifiable under the general heads made use of, and so numerous and variable in their nature as not to admit of classification in detail.*





